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Inside Dope

By George F. Taubeneck

People Are Thinking Ruthenburg on The Debt The Two Big Rivals Marketers, Please Note

People Are Thinking

One encouraging thing about "the fix we're in" is that a great deal of sound thinking about our national and international problems is being done by a great many sound thinkers.

We can't recall any time in the last two decades when so many keenminded business men were training their big intellectual guns on political and economic targets.

This week's column will be entirely devoted to some interesting excerpts from writings of this nature which we're read recently.

Ruthenburg on The Debt

Couple of weeks ago the NEWS carried a sober editorial on the problem of our national debt-something all too many people-in-a-hurry tend to overlook.

Shortly afterward, our attention was called to a speech made before the National Metal Trades Association at Cleveland, some three months This speech was delivered by Ruthenburg, president of Servel, Inc.

In his usual masterful style, Mr. Ruthenburg lays the cards out on the table, face-up:

"How many of our fellow Americans are now giving thought to the sobering fact that as we emerge from the war we may be indebted in an amount equal to or exceeding our total national wealth?

"If we take into account the value of squandered natural resources, never to be replaced-minerals and depleted farm lands-and the incalculable value of lives lost and rendered ineffective, our losses extend beyond the capacity of imagination.

"Nor is it generally understood that since 1929 many of our economic base lines, guide posts, and landmarks have vanished. Before that fateful year the United States of America had been a self-sustaining, profitable, going concern.

"Since that time we have, for 16 long years, been creators of deficits economic improvisers, recklessly engaged in fiscal experimentation.

"We hear much talk of 'full employment' and of a postwar boom. How much discussion have you ard about how we are going to pay for this most costly of all wars?

"Let us make no mistake. We must pay the most fantastic debt ever created in the world's history with one coin or another. The choice of coin lies between drastically reduced living standards and immensely increased productive efficiency.

"Those seem to me to be the simple, indisputable facts which must be accepted as premises for any discussion of future business practices and industrial relationships."

The Two Big Rivals

"Russia and the United States will indoubtedly be the two most powerful countries in the postwar era," claims Harold D. Lasswell in a report entitled "World Politics Faces Economics," recently released by the research division of the Committee for Economic Development. Mr. Lasswell is director of war communicaions research for the Library of

Pointing out some of the causes of World Wars I and II, the author indicates the differences between the U.S.S.R. and the U.S., and suggests methods whereby each may live at peace with the other.

(Concluded on Page 6, Column 3)

Food Foundation Sets First Meet For March 28-30

SYRACUSE, N. Y. — "Blueprints for Better Living," depicting the background, principles, and techniques of the "Frostmaster" system of department store frozen food merchandising as well as quality control and product development services of the Frozen Food Foundation, Inc., will be the theme of the foundation's first annual meeting to be held here March 28-30.

On display will be the newly developed "Frostmaster" home storage frozen food cabinet, specially designed storage, selling, and transportation equipment, and operating facts and figures resulting from several years of intensive research, according to Gerald A. Fitzgerald, technical director for the foundation.

During the three-day conference guests will also inspect the Syracuse frozen food home-delivery pilot plant operation and the functioning of the foundation's research and service laboratories.

Guests will be limited for the first two days of the conference, it was further stated. The March 28 meeting will be confined to present department store members of the group. This membership includes more than 50 leading department stores in the United States and Canada, the announcement said.

A selected group of non-member department store representatives will be invited for the second day's meetings. On March 30, organizations in the equipment, packaging, transportation, and other allied fields are scheduled to attend.

Department stores listed as members of the foundation include Marshall Field, May Co., R. H. Macy, T. Eaton Co., J. L. Hudson Co., Thalhimer's, Joseph Horne Co., and Allied Stores, Inc. Carrier Corp. and Aviation Corp. are among equipment manufacturing members.

5% Increase Given Weber Line by OPA

LOS ANGELES - A 5% increase factor over Oct. 1, 1941, prices on commercial refrigerators has been granted by OPA to Weber Showcase & Fixture Corp. here.

This increase factor need not apply to Weber products if their ceiling prices are already higher than would prevail if the 5% factor were added to the 1941 prices, OPA rules. In other words Veher reduce its established price ceilings to bring them into line with the new provisions of Order 79 to Revised (Concluded on Page 13, Column 3)

Melchior, Armstrong, Opens 6th Branch Office

SYRACUSE, N. Y. - Melchior, Armstrong, Dessau Co., Inc. announces the opening of its sixth branch office here, with Matt Kratochwill as manager and George R. Simm as sales engineer. The outlet will carry stocks of refrigeration, air conditioning, and oil heating supplies and equipment, it is said.

Mr. Kratochwill, a member of the organization since his graduation from La Salle university in 1937, entered the Army Air Force as a captain in 1942, and was recently released to inactive duty.

Mr. Simm has been affiliated with the company since 1939 in the capacity of sales engineer. He attended engineering courses at Rutherford and Bennet Colleges, England.

In connection with an expansion program calling for the re-opening of branches in Baltimore, Md., and (Concluded on Page 4, Column 4)

On Universal Cooler 10-15%

MARION, Ohio-Price increases of 10% and 15% have been granted by OPA on compressors, condensing units, and parts for same produced and sold by Universal Cooler Corp.

Whether the size of this boost is indicative of the industry wide price increase now being studied by officials of OPA and representatives of the condensing unit industry is not

The industry wide price order is expected to be issued momentarily, and it is thought that some announcement may be made this week at the national meeting of the Refrigeration Equipment Manufacturers Association in Chicago.

Present Universal Cooler prices on compressors and condensing units up to and including 1/2 hp. may be increased 15%. Prices on units from % hp. to 25 hp. may be boosted 10%, and a 10% increase also applies on all spare parts, for compressors and condensing units up to 25 hp.

Resellers of these products, not including manufacturers who incorporate the units in other refrigeration items, may pass along this increase to their customers. The resellers' price boost is not figured on a percentage basis, but it is the actual dollar and cent increase that he pays to the manufacturer, points out OPA.

Locker Group Plans

DES MOINES, Iowa - National Frozen Food Locker Association has formulated plans for three regional locker conventions to be held in St. Paul, April 19-20; Portland, Ore., April 24-25; and Oklahoma City, April 29-30.

The convention committee-L. R. Uhrig, chairman, Carrollton, Mo.; L. E. Bothell, Monroe, Wis.; and H. L. Titus, Sterling, Colo.-will direct the conventions, which are scheduled and sponsored by the association.

Convention exhibits will include a complete display of equipment, supplies, and materials for locker plants. Space and facilities for exhibits have been obtained at each of the cities in conjunction with convention meeting places. Exhibit booths are handled through the office of Ray R. Farquhar, 656 Insurance Bldg., Omaha 2, Neb., and requests for room should be directed to his office.

The 1946 national convention is to be held at Cleveland, in October.

Liquid Carbonic Shows Loss Despite Big Orders

CHICAGO - Durable Products Division of Liquid Carbonic Corp. here has orders for two years' production of soda fountains, bottling machinery, and other items, but the management reported recently its belief that it will be well into the quarter beginning April 1 before enough of these products can be produced to enable the division to operate at a profit.

Net loss of the company for the quarter ended Dec. 31 amounted to \$191,551 as a result of shortages of iron castings, sheet steel, compressors, and motors that held back production. Meanwhile, expenses increased to maintain expanded manufacturing, engineering, and sales organizations.

Liquid Carbonic's new plant at Morrison, Ill. will be devoted to the production of the "Frostor" household refrigerator for the Frostor Division of General Tire & Rubber Co.

OPA Ups Prices Rathbun To Head G-E Resumes



OMAHA, Neb. - Ross Rathbun, former head of the air conditioning department of Westinghouse Electric Corp., has been elected president of Baker Ice Machine Co. In this new post he will direct the firm's expansion program already in progress.

In addition to having spent four years as chief engineer for the Madera Co., Ltd., Chihuahua, Mexico, Mr. Rathbun more recently was vice president of B. F. Sturtevant Co., Boston, a division of Westinghouse Electric. Born in Mitchell, S. D., he graduated from Dakota Wesleyan university and took further studies in electrical and mechanical engineering at Massachusetts Institute of Tech-

Regional Conventions Dr. Philipp Now Kelvinator V.P.

DETROIT-Dr. L. A. Philipp, chief engineer, Kelvinator Division, Nash-Kelvinator Corp., has been elected vice president of the corporation in charge of engineering, Kelvinator Division, George W. Mason, president, has announced.

The directors, at a regular quarterly meeting here, also reelected all officers.

Dr. Philipp joined Kelvinator in 1927 as director of research, after lengthy fellowships at the University of California and the University of (Concluded on Page 4, Column 5)

Little Price Relief Seen for Retailers

WASHINGTON, D. C. - Industry and trade is still awaiting clarification of the Government's wage-price policy.

There has been some speculation as to just how this policy might affect retailers, but Government officials thus far have been disinclined to even discuss this subject.

However, one of the first points of clarification made told employers in effect that there would be no point in applying for price increases, unless it could be shown that earnings would drop below 1936-1939 averages as a result of the added wage costs. This, it is felt, would bar relief to

many retailers.

The Government also announced that it would give primary emphasis to the "review of ceiling prices for an industry as a whole on an overall basis," and that handling of individual hardship cases must follow industry-wide decisions.

"Only where industry-wide consideration does not seem appropriate, will individual company cases be given priority," the OPA statement

Baker Ice Machine Wage Parleys With Union

Wilson Says Talks on Prices with Bowles 'Got Nowhere'

NEW YORK CITY - Charles E. Wilson, president of General Electric Co., and representatives of the striking United Electrical, Radio, and Machine Workers, CIO, last week resumed wage negotiations for the first time in a month at meetings called by two special mediators appointed by Secretary of Labor Schwellenbach.

Meanwhile tension grew in Philadelphia and Schenectady where police fought picket lines.

Although Mr. Wilson hinted that G-E was prepared to increase its 10% wage boost offer originally made to the union, he revealed that his talks with Chester Bowles, economic stabilization director, had 'got nowhere."

According to reports from Washington, D. C., the Administration is attempting to bring about settlement of the strikes at G-E and Westinghouse through the Wage Stabilization Board, using the 181/2 cent hourly increase granted by General Motors Corp. electrical divisions as the yardstick.

The electrical manufacturing industry is receiving less consideration from OPA than most other industries are, declared Mr. Wilson after his meeting with Mr. Bowles. Price increases of 20% to 30% had been authorized for many automobile companies since 1940 while electrical appliance prices had gone up only 3%, he pointed out, adding that some industries had received as much as 50% to 100% boosts in prices.

"It doesnt' take an OPA economist to know you can't pay 42% to 52% more wages, which is what we would be paying even with the increase we have already offered, and 15% to 20% more for materials with a price increase of only 3%," he asserted.

Mr. Bowles informed him, said Mr. Wilson, that G-E would have to apply for price increases on each of the many thousands of individual items the company produces.

Clashes between police and pickets occurred last week in both Philadelphia and Schenectady. Philadelphia courts had earlier issued an injunction to prohibit mass picketing of the G-E plant there. As many as 1,400 strikers had been forming picket lines around the plant. Some 1,000 mounted policemen were used to break up the picket lines in a clash that resulted in only one injury and the arrest of seven pickets.

Police in Schenectady forced a way through picket lines for 30 G-E supervisory employes, but were repulsed when they tried to take 200 other non-production employes into the plant later. Police arrested 19.

In Pittsburgh, Westinghouse was denied a court order which would restrain picketing at its East Pittsburgh plant.

Shortages of Metals Heightened by Strikes

WASHINGTON, D. C. - Although the steel strike is officially settled, American industry still faces serious shortages of metals. Steel production remains at a low point, and the already scarce supply of copper, brass, and lead is being further reduced by strikes in mills, smelters, and fabricating plants.

Major steel companies have made wage settlements with the union and (Concluded on Back Page, Column 1)

Advantages Seen In Air Conditioning of Fire Control Rooms on Navy Warships

NEW YORK CITY-Performance of Navy personnel in plotting and fire control rooms aboard ships in hot tropical areas may be improved enough with air conditioning to warrant the added weight of the necessary cooling equipment.

These findings, admittedly inconclusive, were made in tests conducted for the Navy early in the war by the American Society of Heating & Ventilating Engineers. Brief reports were presented during the society's recent annual meeting in New York City.

FURTHER TESTS SEEN

It is thought likely that the Navy will conduct further tests aboard ship under actual conditions rather than under simulated conditions in a laboratory which characterized the original tests.

Two groups of studies were made. One was devoted to the "Physiological Response of Subjects Exposed to High Effective Temperatures and Elevated Mean Radiant Temperatures," and was conducted by Clark M. Humphreys, Oscar Imalis, and Carl Gutberlet, who were then serving on the A.S.H.V.E. laboratory

The second was an "Experimental Investigation of the Effect of Change in Atmospheric Conditions and Noise Upon Performance," conducted for the Navy by Dr. Morris S. Viteles of the University of Pennsylvania; and Dr. Kinsley R. Smith of Pennsylvania State College.

EFFECTIVE TEMPERATURE USED

The latter investigation was primarily concerned with the effects of hot atmospheres and high noise levels on men in plotting and charting rooms where speed, accuracy, and morale are of importance.

Tests were made on the basis of effective temperature, which is defined as an arbitrary index which combines into a single value the effect of temperature, humidity, and the movement of air, on the degree of cold felt by the human body. The numerical value is that of the temperature of still, saturated air which would induce an identical sensation of warmth.

Effective temperatures of 73°, 80°, 87°, and 94° were employed in the tests conducted by Drs. Viteles and Smith. The 73° E.T., was obtained with a 70° F. dry bulb and a 65.5° F. wet bulb; 80° E.T. by 88° F. dry bulb and 73.3° F. wet bulb; 87° E.T. by 98° dry bulb and 81.5° wet bulb; and 94° E.T. by 108.5° dry bulb and 90.3° wet bulb.

WHEN COOLING IS NEEDED

These preliminary tests seemed to indicate that there was little need to provide equipment for the reduction of effective temperature below the 80° point, but it is probably undesirable to attempt work of the type studied when effective temperatures are as high as 87°.

An increase from 73° to 80° E.T.

did not adversely affect the output on the various tests, according to Drs. Viteles and Smith, who stated further that at 87° E.T. the output was considerably lower than at the 73° and 80° E.T. levels.

E.T. also Performance at 87° tended to be more variable than at lower effective temperatures, and there was found to be a constant increase in both pulse rate and oral temperatures with increases in effective temperatures.

SOME NOISE HELPFUL

These tests also studied the effect of noise conditions above 72 decibels to determine whether it was worthwhile to spend additional funds to assure reduction of noise involved in the cooling and circulating of air.

An increase in noise level above 72 decibels appeared to be somewhat favorable to increased output, and accuracy was not consistently or seriously affected by an increase in the noise from 72 to 90 decibels.

In general, reported Drs. Viteles and Smith, it appears that the effect of high temperature on performance is much more adverse than that of high level of noises, at least of the type employed in these experiments.

Goodrich Research Bldgs. To Be Air Conditioned

AKRON, Ohio - Five separate, completely air conditioned buildings of gray brick will comprise the new research center of the B. F. Goodrich Co. soon to be constructed on a 260 acre tract halfway between Akron and Cleveland near Brecksville, Ohio, according to an announcement by John L. Collyer, president. The announcement was made on the 75th anniversary of the founding of the Goodrich company.

Main laboratory and headquarters for basic Goodrich research will be T-shaped building measuring 202 ft. across the front, 172 ft. deep, and three stories tall. It will include 81 individualized laboratories, a cafeteria and dining room, an assembly room with seating capacity for 250 people, and a technical library.

Second building of the center will be used for "evaluation of work done in fundamental research," stated Dr. Howard E. Fritz, director of research. Having three stories, the building will house physical testing, chemical engineering research, complete shops, receiving and store rooms, and the necessary power units.

Equipped with barricades and instruments for safety, a third structure will be known as the "high pressure" building for testing of chemical reactions. For research work in toxic materials and the storage of solvents there will also be a highly ventilated building.

At the outset of operations in the research center the staff will consist of between 220 and 250 persons, Dr. Fritz said. He emphasized that the plans allow for almost unlimited additions and expansion, either by enlarging the buildings already scheduled or by adding additional structures.

Outstanding characteristic of the new Goodrich laboratories will be the adaptability for rapid conversion from one type of work to another Removable partitions, interchange able fixtures, and a variety of specia services will be employed. The Brecksville building site was selected because of its freedom from dust cross country electric lines, vibration and noise, explained Dr. Fritz.

Air Conditioning Boom In Cleveland Predicted

CLEVELAND-National sales estimates made by authorities in the field predict that installation of air condi tioning equipment in Cleveland, in terms of connected horsepower load during the next five years will equal the city's entire prewar volume Frank A. Kolb, commercial sales manager for the Cleveland Electric Illuminating Co., told the Cleveland Section of American Society Refrigerating Engineers.

Cleveland air conditioning sales i the past have represented 2% of the national total, he said, and if that percentage continues to hold good sales of store and room coolers in the next five years should range between 7,000 and 14,000 units.

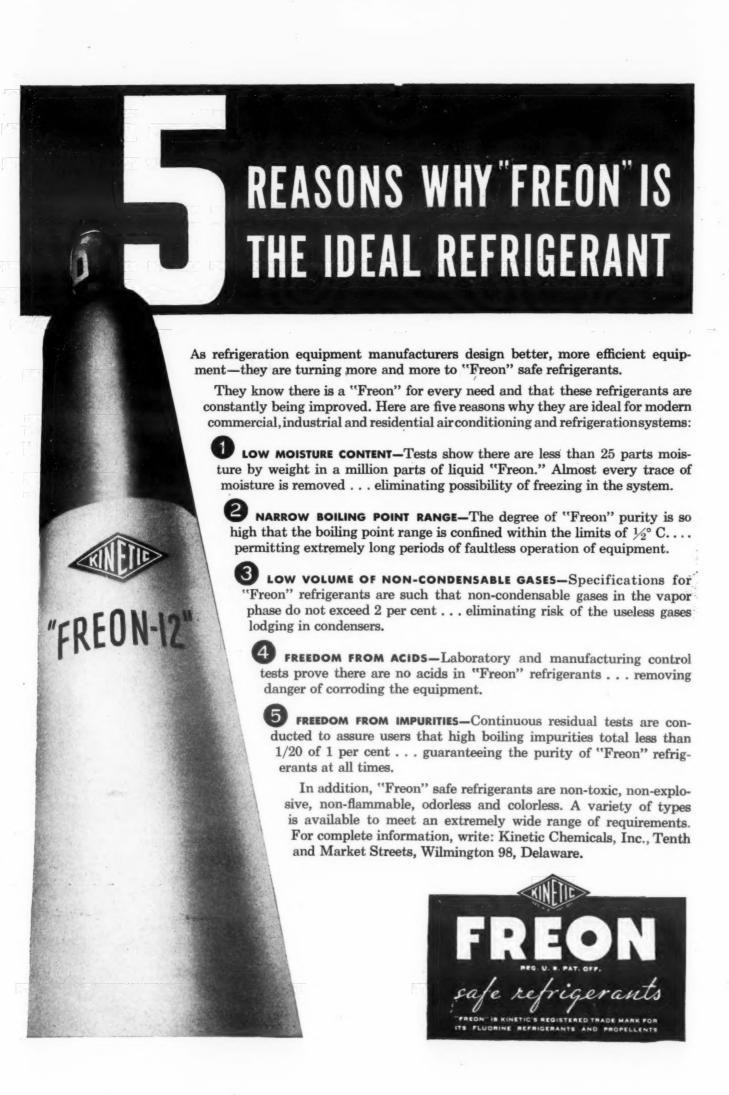
Household refrigeration, representing only 15% of the total commercia prewar load, probably will contribute no substantial gain to the postwa load, he believed. Possible exception would be home freezers, he admitted there were very few of these before the war, and frozen foods since ther have received wide acceptance.

Air conditioning installations offer a less profitable load, with an aver age consumption of 600-800 kwh. i contrast to household refrigeration' 1,800 kwh. per horsepower per year

A factor sometimes overlooked however, Mr. Kolb cautioned, is that air conditioning in a store is a investment difficult to weigh dollars-and-cents return. Usually, the final improvement made, it offers I figures for isolated accounting.

American Thermal Industries Is Correct Company Name

DETROIT-In a recent article the NEWS regarding American Ther mal Industries, Inc., there was of reference to the company as "Ther mal Industries." This reference points out Emanuel Feinberg, presi dent caused some confusion. The ful name and address of the company is American Thermal Industries, Inc. 2519 Bellevue, Detroit 7, Mich.



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Cooling Jobs May Find Peacetime Uses

CHICAGO - Spurred by wartime requirements for sub-freezing refrigeration applications, many special temperature and pressure limiting valves have been developed for the Armed Forces and industry which cut initial and operating costs, declared John A. Schenk, field engineer for Alco Valve Co., in a recent talk before the Chicago Section, American Society of Refrigeration Engineers.

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Mr. Schenk, who is a graduate of the University of Detroit and a veteran of 11 years field application service with Alco, stated that storage of food, serums, blood plasma, and other applications made the need for such valves absolutely imperative.

In many instances, he continued, condensing units were not required to operate in the higher temperature ranges. Thus, a saving was effected by sizing the motor driving the condensing unit to fit the power requirements for the suction and discharge pressures actually encountered in the operating range of the unit.

Generally, Mr. Schenk stated, special valves limit suction pressure when the compressor starts, preventing the motor from being overloaded. This in turn may often make possible the use of a smaller motor because excessive load during the pull-down period is avoided and oil pumping of the compressor minimized, he pointed out. Concluding his talk, Mr. Schenk

Kerr Is Vice President Of Rockwell Mfg. Co.

PITTSBURGH-A. J. Kerr, general sales manager of the Rockwell Mfg. Co. since 1944, has been elected vice president in charge of sales.

In his new post Mr. Kerr will coordinate the marketing activities of the company's various subsidiaries and divisions, it was said. These include the Pittsburgh Equitable Meter Division, Nordstrom Valve Co., Rockwell Machine Co., the Delta Mfg. Co., V. & O. Press Co., Edward Valves, Inc., Crescent Machine Co., Rockwell International Corp., Monesson Foundry & Machine Co., and the Arcade Mfg. Division.

Holscher Returns to Plant Post at Seeger-Sunbeam

ST. PAUL-Max Holscher has returned to the Seeger-Sunbeam Corp. as superintendent of the porcelain enamel plant after over three years service in the Army, it was announced by N. H. Griebenow, vice president and works manager.

Mr. Holscher had been with the Seeger Refrigerator Co. for two years at the time of his induction, the announcement said. After receiving of the his commission, he was sent to Italy as an armament officer.

A graduate of Ohio State University, Mr. Holscher was employed by range the Florence Stove Co. and Westinghouse Electric Corp. before coming to Seeger, according to Mr. Griebenow. house Electric Corp. before coming

Plans 'Southeast's Largest Frozen Food Concern'

COLUMBIA, S. C.—This city will have the largest frozen foods processs offer ing and storage concern in the Southeast, it was declared by Lott wh. in Lawson in announcing recently that work had begun here on his proposed year \$150,000 plant on lower Main St.

looked To be known as Lawson Frozen food Locker Co., the plant will house 1,392 individual freezer lockers which will be rented on an annual basis. lly, the lt also will have meat and poultry porcessing machinery, salt curing, and storage rooms, a fruit processing room, lard rendering, and sausage making equipment. The building will be one-story high and measure 75 by 127 ft.

Harry Richman Sets Up Royal Refrigeration Co.

LOS ANGELES-Royal Refrigeration Co. is the firm name under which Harry Richman has published a certificate that he is conducting business at 5071 West Pico Blvd., Los Angeles.

explained a number of other new refrigerant and control valves.

At the meeting members of the Chicago section elected H. J. Prebensen secretary and Carl Eichstaedt treasurer, succeeding Erich B. Utescher, who had held both offices

In addition, Mr. Eichstaedt, who is also chairman of the Chicago Refrigeration Code Committee, reported on local opposition to a new regulation concerning the connection of condensing water lines to city mains. A petition requesting a hearing before the Mayor and withholding enforcement of the regulation until an engineering investigation could be made has been drawn up by a joint committee representing 33 local associations.

The Chicago Section subsequently agreed to authorize W. S. Bodinus, chairman, to sign the petition for the

Parts Wholesaler

BROOKLYN-E. L. Durham & Co., Inc., a new refrigeration and air conditioning parts and supplies wholesaler, has been formed here by E. L. Durham, Yorke Phillips, and A. A. Mac Avoy.

Equipped with parking facilities, the firm already has accumulated a large stock of refrigeration, air conditioning, and heating supplies, according to Mr. Durham, who is president and treasurer.

Among standard lines the firm will handle are expansion valves, water valves, controls, coils, condensing units, blowers, motors and motor parts, refrigerants, and tools.

Mr. Phillips, vice president, has been identified with the refrigeration industry for the past two decades. Secretary for the new organization will be Mr. Mac Avoy, who has been affiliated with the jobbing industry for a similar period.

The company is incorporated in the state of New York at \$100,000.

Special 'Limiting' Valves Developed For War Durham Co. Sets Up as Ice Company Goes 'All Out' In Promoting **Mechanical Refrigeration Items**

NIAGARA FALLS, N. Y.-In a general expansion plan Cataract Ice Co. is increasing display space for a modern Westinghouse kitchen, laundry, and radio room and is improving its ice plant facilities, William J. Williamson, president, has announced. The firm recently marked its sixtieth anniversary.

Cataract is a Westinghouse appliance dealer and a General Electric distributor for air conditioning, commercial refrigeration, and automatic heating. Both franchises, said Mr. Williamson, cover Niagara and Orleans counties. The company is also a dealer for Cordley & Hayes water coolers, Weber commercial refrigerators and cabinets, and Vitalaire ice equipment.

Among facilities scheduled for installation in the firm's ice plant, Mr. Williamson said, will be ice cube making, ice sizing, and preparation machinery.

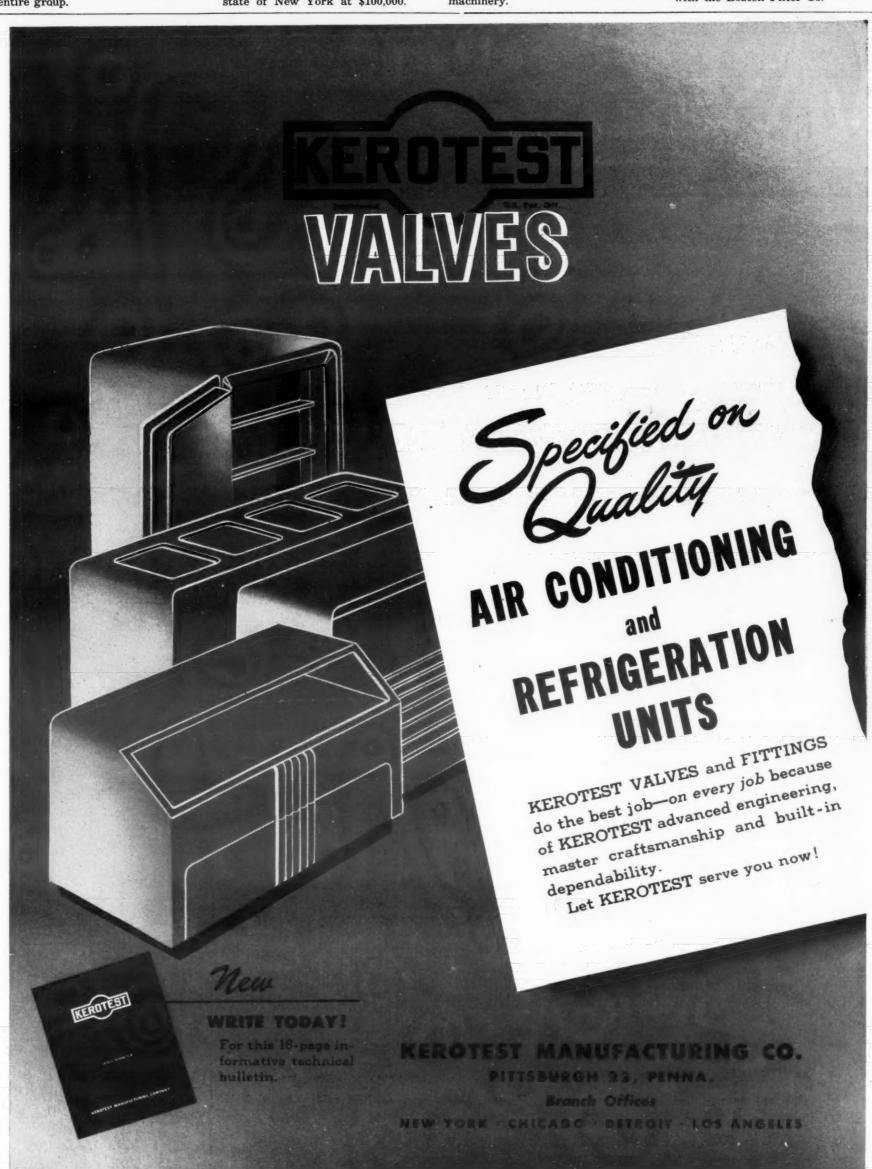
Irene Meyer is head of the appliance, domestic equipment, and kitchen planning division. The air conditioning, heating, and commercial applications are under the supervision of Louis E. Ebey.

William J. McCracken, new service manager, will handle service and installation, according to Mr. Williamson.

Kenneth Boucher Heads Washington Institute

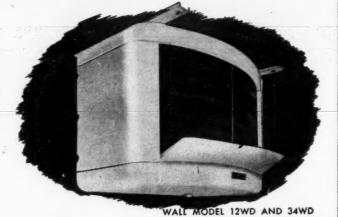
WASHINGTON, D. C. - Kenneth D. Boucher, manager, Carrier Division, United Clay Products 'Co., has been elected president of the Electric Institute of Washington.

After graduation from Purdue university, Mr. Boucher became associated with Frigidaire and later with the Boston Filter Co.



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He, like many other expert inspectors and Quality Control Engineers in PENN's modern factory, knows that the operation of the refrigeration equipment you install depends on automatic controls. Consequently, every PENN product must be designed, built and thoroughly tested to assure highly satisfactory operation under all normal service conditions. Here, for example, this inspector measures the flow of water through a PENN Water

Valve by means of an accurate flow meter. The opening point of the valve is adjusted to meet exactly the customer's specifications.

We have always tried to stay close to the customer and pay strict attention to his needs and desires... a policy that has resulted in better refrigeration controls for you. PENN Controls are available for temperatures as low as -150° F., and for pressures as low as 28'' vacuum. Ask your jobber—or write direct. There is no obligation. Penn Electric Switch Co., Goshen, Indiana. Export Division: 13 E. 40th Street, New York 16, U. S. A. In Canada: Penn Controls, Ltd., Toronto, Ontario.



FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

AUTOMATIC CONTROLS

Household Cabinet Producers Get Price Increase Factor

WASHINGTON, D. C.—A reconversion pricing factor of 5.41% has been established by OPA for manufacturers of household refrigerator cabinets, by Order No. 7 under MPR 188.

The order provides that manufacturers may apply individually for price increases that will yield each firm its average peacetime earnings, or half the industry's average earnings, whichever sum is greater.

If the latter margin is favored, refrigerator cabinet manufacturers will get 5.41% over adjusted costs, these increases being absorbed by distributors and retailers, and resulting in consumer prices remaining at 1942 levels.

This action has been taken in place of allowing industry wide percentage increases over 1941 selling prices, such increases being difficult to establish because of the differences in operating methods, profits, and prices among the firms concerned, explained OPA.

Melchior, Armstrong--

(Concluded from Page 1, Column 2)
Washington, D. C., M. G. Johnson and J. C. Crocker have joined the firm's home office staff in engineering capacities.

Mr. Johnson will serve as design engineer in the company's manufacturing program of gravity finned coils. Associated with the Melchior, Armstrong, Dessau Co. since 1938, he joined the Army Corps of Engineering in 1942, and advanced from the rank of captain to that of lieutenant colonel. He is a graduate of Stevens Institute of Technology.

Mr. Crocker will act in the capacity of application engineer. Recently released by the Navy, he held the rank of commander, and was skipper of a destroyer escort.

15-Cu. Ft. Home Freezer Is Priced at \$560

LANSING, Mich. — A maximum retail price of \$560 was fixed recently by OPA for a 15-cu. ft. automatic home freezer manufactured by Arctic Refrigeration Co. here.

On sales to distributors, the ceiling price is \$280, and on sales to dealers, \$336. Ceilings for the freezer, Model No. 150 ADL, were established by Order 314, MPR 591.

Now Vice President



DR. L. A. PHILIPP

Kelvinator Officers ---

(Concluded from Page 1, Column 4)
Michigan, where he received his
Ph. D. degree in 1925. Dr. Philipp
became manager of the Detroit
plant of Nash-Kelvinator in 1937, and
two years later became chief engineer
of Kelvinator.

Recognized as one of the nation's outstanding men in technical research, he has participated in many important refrigeration and appliance developments and is believed to hold more refrigeration patents than any other individual.

Officers of Nash-Kelvinator Corp. are: Charles W. Nash, chairman; George W. Mason, president; R. A. DeVlieg, vice president in charge of manufacturing; H. A. Lewis, H. G. Perkins, A. M. Wibel, vice presidents; H. C. Doss, vice president in charge of Nash sales; C. T. Lawson, vice president in charge of Kelvinator sales; N. E. Wahlberg, vice president, engineering, Nash Division; L. A. Philipp, vice president, engineering, Kelvinator Division; Godfrey Strelinger, treasurer; H. J. Mellum, secretary; and J. J. Timpy, comptroller.

New Refrigeration Firm Established In Vancouver

VANCOUVER, B. C., Canada—Northwest Refrigeration Co., Ltd. has been incorporated with registered offices at 1500 Royal Bank Bldg., 675 West Hastings St., Vancouver, B. C. Capitalization of the firm is set at \$10,000.



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BUFFALO - In Federal Court, Judge John Knight rejected the Refrigeration Patents Corp.'s objection on jurisdictional grounds to the General Electric Co.'s suit for a declaratory judgment seeking to determine the validity of a patent for a postwar type of refrigerator.

Refrigeration Patents Corp. asked for dismissal of the suit on the grounds G.E. has not produced a two-temperature compartment refrigerator and, therefore, "no actual controversy exists."

The patent involved is known as the Bronaugh & Potter Patent and relates to a refrigerator with freezing compartments operating at different temperatures from the same compressor. General Electric Co., in its suit, says it is preparing to manufacture the two-temperature type of refrigerator for domestic use.

United Gets Prices for Direct Beer Dispensers

HUDSON, Wis .- Authorization of ceiling prices for two sizes of direct draw beer dispensers manufactured by United Refrigerator Mfg. Co., Inc., here was recently granted by OPA.

Order 316, MPR 591, fixed the following ceilings for the dispensers:

	Dis- tribu- tors	Deal-	Con-
Model	fors	era	aumera
2½ barrel model—remote	\$212	\$248	\$414
3½ barrel model—remote	285	345	575
2½ barrel ¼ hp. condensing unit	332	398	664
3½ barrel ½ hp. condensing unit	420	504	840
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Glass filled water faucet complete with copper installed at factory, add \$47.00 to the consumer price.

Pittsberg Chemical Changes to Eston

LOS ANGELES - The Pittsberg Chemical Co., producer of refrigerants, insecticides, fumigants, and other industrial chemicals, has recently been incorporated under the name of Eston Chemicals, Inc.

Head officers for the new corporation are A. M. Esberg, president, and G. S. Wheaton, executive vice president. There has been no change either in management or general operations of the organization.

McCammon Forms Service Shop In Fort Worth

FORT WORTH, Tex.-A complete new shop to service and dehydrate sealed or semi-sealed condensing units has been constructed here by McCammon Refrigeration Service, W. F. McCammon, Jr., announces. All standard sealed units will be returned to the factory for repair and other types reworked in the shop. The firm was selected by Western Auto Supply Stores here to deliver, install, and service "Wizard" refrigerators and washing machines

Plan \$30,000 Food Plant

OXNARD, Calif.—A \$30,000 frozen foods plant to be constructed here by Stokely-Van Camp Co. is scheduled to go into production this summer, according to present plans. It will be operated in cooperation with local growers and Union Ice Co.

=Certified = BY A QUARTER CENTURY OF REFRIGERATION KNOW-HOW

Plan your automatic refrigeration installations for a triple advantage: Proved performance, low first cost, low maintenance cost, LIPMAN machines for dependable service in any field of nmercial refrigeration are the result of more ban a quarter century of manufacturing know-bow. Let LIPMAN serve your needs profitably! GENERAL REFRIGERATION DIVISION



Refrigeration Service Co. Food Cabinets Priced

DENVER—Ceiling prices for sales of three models of frozen food cabinets manufactured by Refrigeration Service Co. here were recently authorized by OPA in Order 315, MPR 591.

Following is the price schedule:

	On sales to—			
Model	Dis- tribu- tors	Deal- ers	Con-	
10A-15 cu. ft. 1/3 hp. condensing unit	\$247.50	\$298	\$495	
4-4 cu. ft. ¼ hp. condensing unit	132.50	159	265	
10-10 cu. ft. 1/3 hp. condensing unit	225.50	270	450	

Bulfalo Forge Co. Declares 45 Cent Stock Dividend

BUFFALO - Directors of Buffalo Forge Co. have declared a dividend of 45 cents a share, payable Feb. 28 to stockholders of record Feb. 21. The company paid a similar amount in all four quarters of 1945.

ated type and requires a minimum drop of 1 psi to operate the piston.

5/6" oriāco — ?-1/2 teus Prese —17 teus Meti 1/3" female H.P.T. connections

FOUR WIRE COIL

One of the features of "Detroit"

salenaids preferred by jobbers

and service men is the dual 115-230 volt 4 lead coil. This coil can

be used on either 115 volt 60

cycle or 230 volt 60 cycle current

by connecting the 4 leads in the

right sequence. Correct wiring

diagram is shown right on the

New Priority Established To Meet Motor Crisis

WASHINGTON, D. C .- With the current backlog of fractional horsepower a.c. motors amounting to 21 months' production, and two of the four largest producers still shut by strikes, the Civilian Production Administration has established "CC" priority ratings for motor production materials and capital equipment.

Priorities assistance has also been granted to producers of an important component of motors-electric high silicon steel sheets-by Direction 12 to Priorities Regulation 28.

Through Direction 11 to PR 28 manufacturers of the small a.c. motors will be assigned priorities ratings to assist them in obtaining all types of construction materials, excepting electric steel, and capital equipment.

Use of the priorities ratings will be confined to applications where production can be substantially increased or to replace equipment fac-

ing breakdowns, explained CAP, emphasizing that the ratings may not be applied when the material is available from a supplier other than the customary source or under different terms of sale.

January shipments were estimated by CPA at two-thirds of the December production figure: 1,079,134 units. February production will not run more than half of December, believes CPA.

Silverstone & Stahl Form Commercial Distributorship

OAKLAND, Calif .- The firm formerly known as Nat Silverstone, distributor for commercial refrigeration products, has been incorporated under the name of Silver-Stahl Corp., Nat Silverstone, president, has announced.

Everett H. Stahl, an ex-major in the Army Air Corps., has joined the firm as vice president. Silver-Stahl's offices and showrooms will remain in Oakland and San Francisco, it was

Cavalier Given OPA Prices On 4 Beverage Coolers

CHATTANOOGA, Tenn.—Cavalier Corp. here was recently given OPA's ceiling prices for sales of four models of its bottled beverage coolers to Coca-Cola bottlers and dealers.

Established by Order 317, MPR 591, the ceilings are as follows:

Coca-Cola bottlers, f.o.b. factory	On sales to Coca-Cola dealers, delivered
\$ 80	\$ 95
	*
111	127
143	163
2.00	
208	222
	Coca-Cola bottlers, f.o.b. factory \$ 80 111 143

Kaufman Joins Northwest Baker

SEATTLE - Vince Kaufman has been appointed general manager for Northwest Baker Ice Machine Co., Inc., here following the resignation of Frank W. Knowles, reports W. B. Winslow, vice president.

copies.

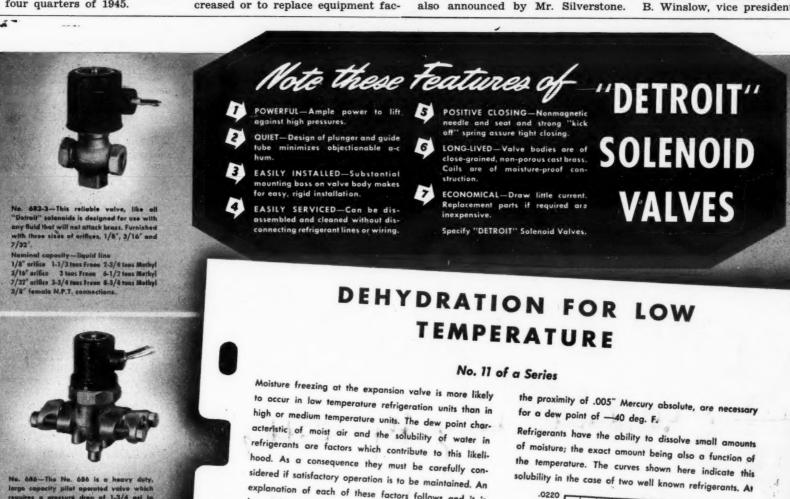
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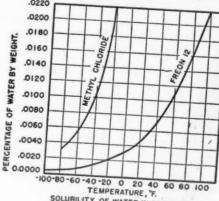
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explanation of each of these factors follows and it is hoped that this material will lead to a better understanding of the urgent necessity for very careful dehydration of low temperature systems.

Atmosphere is a mixture of dry air and water vapor, known as moist air. Each of the ingredients of moist air exerts its own pressure and the sum of the two is the atmospheric pressure. Water vapor pressure is very low and is hardly noticeable when compared to the dry air pressure. Even so there is an exact relation between the vapor pressure and the temperature at which water will boil or vaporize if originally in the liquid state, or condense if originally in the vapor state. Since water vapor under pressure is always present in the air, condensation will occur when its temperature is lowered to the saturation point. This condensation point is known as, and always referred to as the "dew point." This is not a constant value but follows the rule that the greater the percentage of water vapor in the air, the higher the temperature at which the dew point occurs. If a system is to operate at relatively high temperature, much more moisture can be tolerated, before the suction temperature gets below the dew point, and condensation occurs. In other words, a high temperature installation will tolerate a higher dew point, hence more moisture without giving trouble with freeze ups.

"Low temperature" units operate at suction temperatures between —10 deg. F. and —40 deg. F. These temperatures will run below the dew point if there is any appreciable amount of moisture in the system. When this occurs, condensation will take place and the water formed will freeze into ice at the expansion valve. Exact dew point data is not available but vapor pressures in



SOLUBILITY OF WATER IN REFRIGERANTS

any given temperature moisture in excess of the amount shown on the chart will precipitate as free moisture. The illustration, therefore, gives a measure of the extent to which a system should be dehydrated. If the evaporation temperature is -20 deg. F, moisture should be reduced to 20 parts per million.

Refrigerants themselves are not moisture free. Freon 12 as sold may contain up to 25 parts per million (the average moisture content is usually less), and reference to the curve shows that moisture precipitation would occur below -10 deg. F.

Thus a system that has not been too well dehydrated initially may be free of moisture precipitation if it is charged with an exceedingly dry refrigerant. On the other hand, a system that has been well dehydrated initially may encounter maisture trouble from the refrigerant itself when operating below —10 deg. F The use of a dryer will minimize the possibility of moisture from either source, and the use of a dryer is recommended on all installations operating below —10 deg. F.

DETROIT LUBRICATOR COMPANY Division of AMERICAN RADIATOR & Standard Sanitary Corporation

DETROIT LUBRICATOR COMPANY

General Offices: 5900 TRUMBULL AVENUE, DETROIT 8, MICHIGAN Division of AMERICAN RADIATOR & Standard Sanitary Corporation DETROIT presentatives - RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL TORONTO, WINNIPEG

"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Safety Float Valves and Oil Burner Accessories • "Detroit" Expansion Valves and Refrigeration Accessories . Stationary and Locomotive Lubricators

PROMINENT ELECTRICAL MANUFACTURER

is interested in acquiring, through cash purchase or exchange of stock, established companies, such as:

- 1. Commercial Refrigeration Manufacturer: Show Cases, Reach-Ins, Beverage Coolers, etc.
- 2. Water Cooler Manufacturer: Self **Contained Water Coolers**
- 3. Air Conditioning Manufacturer: Manufacturer of Self Contained **Air Conditioning Machines**
- Commercial Frozen Food or Ice Cream Cabinet Manufacturer

We are also interested in purchasing or acquiring the rights to manufacture a line of hermetically sealed compressors that have been completely engineered. Facilities available for manufacturing compressors.

Operating management retained. All inquiries strictly confidential. Communicate with us direct or through your attorney.

Box 1941, Air Conditioning & Refrigeration News

Inside Dope

By George F. Taubeneck

(Concluded from Page 1, Column 1) "The American economy is dy-

namic, changeable, expansive. It has an extraordinarily varied pattern of economic control, ranging from intensely competitive conditions through various degrees of private and public monopoly. Thanks to our enormous productivity, it has a high rate of savings combined with high standards of living," writes Mr. Lasswell.

"America's problem is to achieve a more stable economic basis for its freedom. We have many elements of balance in our institutions, but what we have of freedom is imperiled at frequent intervals by the result of economic insecurity and, over longer periods, by the inroads of economic restrictionism upon genuine business enterprise," further states.

U. S. economic policy is ruled by three chief objectives, believes Mr. Lasswell. These are: 1) high levels of productive employment, 2) a continually rising standard of wellbeing, 3) the attainment of these first two points by means compatible with both individual freedom and economic security.

The extent to which these aims are accomplished is dependent upon existing world environment and the degree of security in world political balance, due to the fact that the U. S. exercises an "export-surplus"

Getting rid of our exports and getting maximum value from our imports is the successful basis of world trade, as revealed by past experience. The value of imports must increase in order to justify foreign investments.

To make import repayments difficult by means of trade barriers, protective quotas, "sanitary" regulations, etc., has been the short-sighted U. S. policy. Because we forced the sale of our goods abroad, and postponing repayment through imports, our government operates a "gift" economy system, actually, rather than an "export-surplus" economy.

On the other hand, Russia's economic system is almost entirely governmentalized, depending little upon the accepted economic processes. Her foreign contacts are carefully inspected to avoid any possible danger to governmental power and

Although some unpleasant features of the "export-surplus" economy are thus avoided, this type of control can prove disastrous if its economic decisions are based on political, rather than financial, considerations.

In the event that Russia should find herself under economic or political pressure, her best countermeasure would be to inaugurate a diplomatic and propaganda program for the purpose of creating a split between government and people in the presumably hostile countries.

This policy implies a thorough exploitation of all foreign economic and racial grievances, and complete control over political and economic minorities at home.

"Certainly it is a mistake to assume that war between the U.S. and Russia is inevitable. The future depends upon factors over which we can exercise much control," concludes Mr. Lasswell.

The Committee for Economic Development adds that the opinions expressed in Mr. Lasswell's report are those of an independent scholar, and not necessarily those of the committee.

Marketers, Please Note

"Nine out of 10 babies now born in the United States are born to native American parents," reveals Vergil D. Reed, associate research director of the J. Walter Thompson Co., in a new booklet entitled "Population & Purchasing Power."

As a result of the decrease in the number of children born to foreign parents, marketers have less need to cater to the preferences of "national" groups insofar as products are concerned, and advertising through foreign-language channels is of less consequence.

Mr. Reed's statistics indicate an increase in the percentage of aged people, which should furnish an excellent market for hearing aids, electric blankets, and similar products and services designed for the treatment of old-age ailments.

That the farm population will not expand is the conclusion of Mr. Reed, and he points out that there is a possibility it may become smaller.

There will be a general tendency to migrate from the North and Northeast sections of the country to the West and Southeast, believes Mr. Reed.

Statistics disclose that more than five million persons who were familiar with advertised products before the war have since died-some of them in battle, most of them through natural causes; while 10.5 million Americans have been born to create an entirely fresh market to which advertising may be directed.

Butcher & Brorein Open Tampa Appliance Firm

TAMPA, Fla. — Butcher-Brorein announces the opening of a new firm here, with Carl D. Brorein as president, W. B. Butcher as general manager, and Lewis J. Foreman as service manager.

Engaged in the sale of household appliances, and air conditioning and commercial refrigeration equipment, the firm is the exclusive Tampa dealer for all Kelvinator products, Carrier air conditioning, and popular lines of radios, washers, etc.

Before entering the present part. nership, Mr. Butcher owned and operated the W. B. Butcher Electric Co. at Wapakoneta, Ohio, for 13 years.

The other partner, Mr. Brorein, is president of the Pennusular Telephone Co. He was formerly president of the Florida State Chamber of Commerce and vice president of U. S. Chamber of Commerce.

Mr. Foreman was electronics and radar engineer with the U.S. Signal Corps during World War II.

Watt Appointed Mills Asst. Adv. Manager

CHICAGO - Robert J. Watt has been appointed assistant advertising manager at Mills Industries, announces Richard K. Law, director of advertising.

After serving for two years as a captain in the Army, Mr. Watt returned to the United States last January. Before entering the armed forces, he was assistant advertising manager at Bauer & Black here.

Wilt Climate Control Formed in Chicago

CHICAGO - Formation of Wilt Climate Control Co., which will handle a complete line of air conditioning, commercial refrigeration, and automatic home heating equipment, as well as home freezers, has been announced by company officials.

The new store, which is 50 ft. wide and 150 ft. long, will have a shop and servicing organization in addition to the showroom.

Members of the new firm are: Charles Wilt, Wilt Electric Co.; Leroy Dierking, Wilt Appliance stores; Robert Meyer, formerly associated with Northtown Refrigeration Service Co.; and H. C. Schrader, formerly with Chrysler Airtemp's Chicago office.

Ace Refrigeration Moves Sales & Service Outlet

NATIONAL CITY, Calif.—"Service is our first thought" is the motto under which Ace Refrigeration Service, formerly located in San Diego, Calif., will operate at its new location here, it is announced by Robert A. Miles and Maurice M. Carrigan, partners in the organization.

The store offers complete service work on both domestic and commercial refrigeration, heating installations, and air conditioning; and plans are being made to incorporate a complete radio and appliance service shop in the near future, it is said.

The firm is a Frigidaire sales and service outlet.

Reeves Takes Sales Post With Coast Refrigeration

OAKLAND, Calif.-H. B. Reeves, recently returned from overseas service as a captain in the Army Air Corps, has been appointed Northern California sales manager for Coast Refrigeration Distributors, Nat Silverstone announces.





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Price Agreement Protects Dealer & Customer

PRIORITY AGREEMENT For Future Purchase of Appliances Alliance, Ohio,.... ...194.... Although I understand that the merchandise is not available for immediate delivery, I desire to purchase from THE COPE ELECTRIC CO. -The following products: at the prevailing retail price at the date of delivery and in accordance with O.P.A. regulations. Down Payment \$... Upon delivery, I agree to pay the balance due upon the terms acceptable to Unless delivery is made within six months, down payment, if any, will be returned upon request and surrender of this receipt. This Priority Agreement does not constitute a final sales contract and is subject to approval of both parties as to merchandise, price and terms. Down Payment of \$ acknowledged THE COPE ELECTRIC CO. Signed Salesman Address

This priority agreement used by the Cope Electric Co. of Alliance, Ohio, features a clause in which the customer promises to pay the ceiling price at the time of delivery, even though the price may then be higher than prevailed when the agreement was signed.

OPA Prices at Delivery

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ALLIANCE, Ohio-In spite of possible future price increases on household appliances, Cope Electric Co. has adopted a satisfactory policy for handling future sales, claims F. H. Ruth, president-treasurer.

Purchasers are perfectly willing to pay future increased prices, Mr. Ruth has found. In order to prevent misunderstandings when the merchandise becomes available for delivery, the organization has a number of printed forms, known as "priority agreements," which must be read and signed by the would-be customer.

The purchaser agrees to pay the current retail price specified by OPA when the merchandise is delivered.

If delivery is not made within six months, the customer may have the down payment returned to him upon surrender of the priority agreement.

Hale Re-opens Separate Appliance Outlet

SAN FRANCISCO-To house a new appliance and radio store, Hale Bros., of California, has leased the building and property at 753 Market St., announces Marshal Hale, Jr., president of the West Coast department store chain. Opening date for the new store is expected to be during the mid-summer season.

Prior to the war, the Hale Bros. organization operated nine appliance units, seven as separate establishments, and two as separate sections within department stores. All were discontinued during the war.

It will cost \$45,122 to remodel the building, it is estimated. Available floor space totals 16,000 sq. ft., 8,000 on the main floor and in the basement, respectively. The store is 168

Radios will occupy one half of the main floor, and appliances the other half. Located at the front of the store, left of the main entrance, will be a section for small electrical appliances, with merchandise divided into groups according to health, food, personal, and comfort categories. Right side of the main entrance, space is reserved for small radios, according to present plans.

From right center to back of store will be 14 demonstration rooms, six for radios, and eight for record play-From left center to back of store, refrigerators, washers, and ironers will be displayed.

In the basement, space is provided for two model kitchens, a model laundry display, gas and electric stoves, water heaters, plus kitchen cabinets and tables.

Customers Agree To Pay Federal Reserve Board Cracks Down on Firm Evading Regulation W

VAN DYKE, Mich. - Indicating that the Federal Reserve System apparently intends to crack down on violators of Regulation W, the Board of Governors has voted a two-month supension of credit sales by Motor City Credit Jewelry Co., Inc., located in this Detroit suburb. The suspension runs from Feb. 24 to April 24, and is the first penalty ever imposed by the Federal Reserve Board for violation of Regulation W.

A consent decree has also been issued by the United States District Court enjoining the company from further violations of the regulation, it was disclosed.

Charges made by Federal Reserve investigators, which were not denied at hearings, alleged that the firm had failed to collect the one-third down payment required on credit sales of jewelry and had further, it is alleged, falsified records to show that the jewelry was being held by the firm on a "lay-away" plan pending full payment of the down payment.

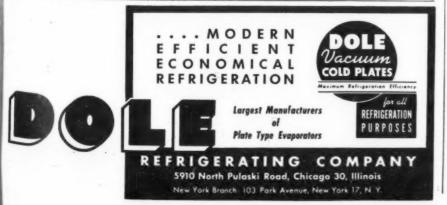
The company's violations of the instalment regulation was first discovered in September of 1944 by an investigator from the Detroit branch of the Federal Reserve Bank of Chicago while making a routine check of the firm's books. Future compliance was promised by the owners of the store.

Following a conference between the owners of the jewelry store and Federal Reserve officials in February, 1945, a further investigation of the firm was made in April, 1945.

At this time, it was found that full compliance was apparently being made, but it was noted that a considerable number of credit transactions had been marked "lay-away," indicating that the store had retained possession of the merchandise until the purchaser had paid the full amount of the down payment as required by section 4(a) of the regulation.

Another investigation in August, 1945, again showed numerous "layaway" transactions. Investigators checked with customers and learned, say Federal Reserve officials, that customers had been permitted to take possession of the jewelry on the day of purchase without making the required down payment.

Records of these sales had been marked "lay-away" and showed delivery of the merchandise on a subsequent date when the purchaser's payments had equaled or exceeded the required down payment, according to investigators.



Electromaster Addition Nears Completion

MT. CLEMENS, Mich.-Construction is now under way on the center section of a new Electromaster, Inc., plant here. The new building will be occupied some time in April, it is planned.

Steel girders are in place, and the building is now ready for the roof and siding. When completed, the section will have 75,000 sq. ft. of space, and will accommodate the porcelain enameling, finishing, and assembly operation.

The general offices, press division, water heater, and commercial departments will remain in their present Detroit location until the second section of the building is completed.



If You're Planning For Future Business Install Ranco Controls CUT-OUT CAPILLARY

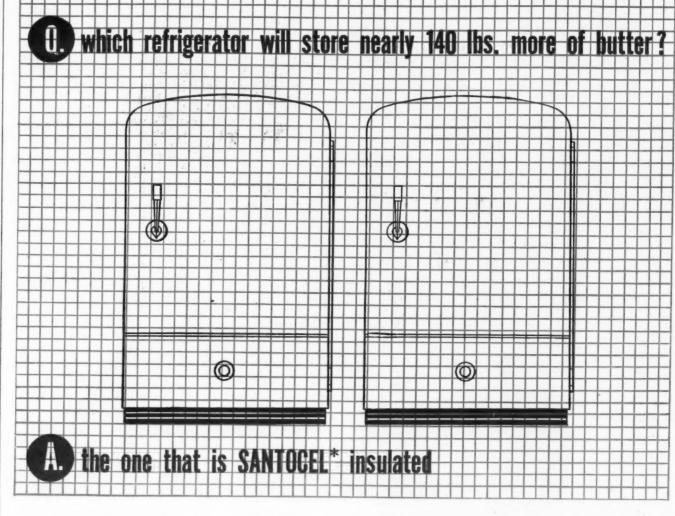


Type 91-0 Exclusive Interlocking Two Temperature Control.

Once you install a Ranco Control and your customer has a chance to experience the value of its accuracy in dollars and cents, he'll appreciate what you've done for himhe'll have confidence in you-turn to you when he has refrigeration problems.

Consult Your Ranco Jobber Today





Both of these refrigerators have the same over-all dimensions. They are, to all outward appearances, the conventional 6.5 cu. ft. boxes. But because the insulating material of one has about twice the efficiency, the thickness of its walls and door has been cut in half. The result is a storage capacity of 9 cu. ft., an increase of 2.5 cu. ft... enough to take nearly 140 lbs. of butter!

That's a sample of what you can do with Santocel, Monsanto's unique silica aerogel, the world's most efficient insulating material. Whether you manufacture household, commercial, or industrial refrigerators, or refrigerated transport, similar results will apply regardless of what you're now using for insulation:

- 1. approximately half the insula tion bulk,
- 2. a reduction of dead weight,
- 3. an average gain of 40% storage capacity.

HOW DOES SANTOCEL DO IT?

This unprecedented efficiency is due to Santocel's unique cellular construction. It is approximately 90% air, trapped in sub-microscopic cells about one-millionth of an inch in diameter. The air may move within these tiny cells, but not far, of course; hence heat conductivity, the measure of insulating efficiency, is cut to the minimum.

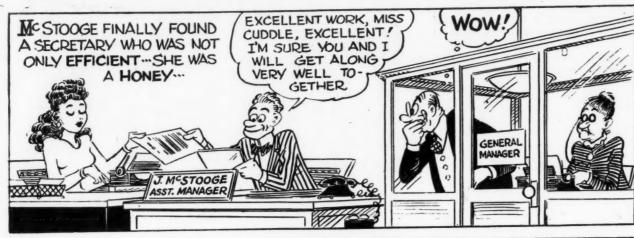
Full technical data on Santocel, samples, or special counsel to your engineers or designers, may be had by addressing: Monsanto Chemi-CAL COMPANY, Merrimac Division, Everett Station, Boston 49, Mass-*Reg. U.S. Pat. Off



Quick Facts About Santocel:

- I. INSULATING VALUE: Thermal conductivity of Santocel is lower than that of any other material or methods of insulation employed except a highly evacuated, silvered-surface space.
- 2. DENSITY: Although low for a free-flowing powder, Santocel's density is about equal to that of other loose fill insulators and is higher than some bat types and the foil types.
- 3. APPLICATION: Santocel can be applied by building a retaining jacket about the object to be insulated, usually of lightweight sheet metal, and filling the intervening space. Being free flowing, it can be easily applied to such a construction.
- 4. SETTLING: Santocel settles to a stable density about as rapidly as other fill
- 5. MOISTURE SORPTION: Like all commonly used insulators, Santocel will not pick up significant quantities of water from the air.

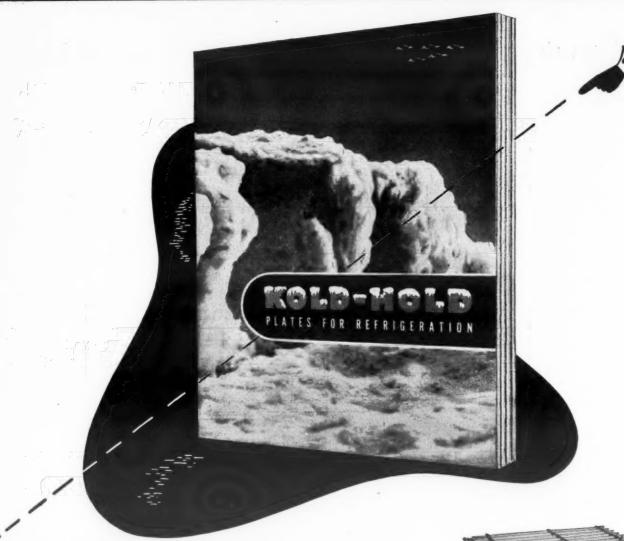
They'll Do It Every Time By Jimmy Hatlo





Buy VICTORY Bonds





contents

Refrigeration



The new KOLD-HOLD Catalog is a book of benefits and savings. It contains refrigeration know-how . . . information relative to the better storage and transportation of perishable products at lower costs. This catalog shows that Kold-Hold Serpentine Plate Type Evaporators have no equal in efficiency and dependability for locker plant space cooling, for shelves and stands in sharp-freezing or as cabinet liners, shelves or dividers. It explains how "Hold-Over" Plate Type Evaporators maintain the temperature of delivery bodies at the uniform level necessary in the successful transportation of fresh meat, ice cream, frozen foods and other perishables.

If you are interested in better storage and transportation of your products, write for this new free book of refrigeration knowledge today.







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It's A Long Road

THE just-concluded session of the United Nations Organization, closing a period of almost six months since the armistice that ended World War II, is a reminder of how long and painstaking the process of *really* putting an end to war is going to be.

If you think this war is over, take a look around.

Is it over in Java, where American guns in the hands of British and Dutch troops are used against a native people fighting for independence? Is the war over in the Holy Land, where the Arabs and the Jews, both promised a land of their own, discover that they have been promised the same land?

Is it over in the Balkans, or Iran, or Manchuria, where Russia is grabbing more and more lands and peoples just as Hitler did in 1936-7-8? Is it over here at home, where men who work and the men they work for cannot agree, and returning servicemen cannot find jobs, or civilian clothes to wear, or homes for their families?

The war is over for those who didn't come back. No doubt about that. But what about those who did come back, safe and all in one piece? Let's excerpt just two paragraphs from a letter written by a young veteran who went into the war before he had really worked into a job, five years ago. With battle citations for the campaigns in Normandy, and the Bulge, and on into Germany, he came back to look for a job. He writes:

"So began the round of calls on newspapers, publishers, agencies, etc. It was gradually brought home to me that the last five years have been profitless, as far as business is concerned. One so-and-so stated that my Army background, plus a nickel, would get me a ride on the subway. I had begun to suspect as much, but with the cheering apparently still going on, I was a little startled to hear the truth so bluntly stated.

"This problem is not peculiarly mine. Around the town I run into many ex-officers with similiar food for thought. How many missions they've flown, how much fruit salad (decorations) they've acquired—those are records for the obsolete file. Ours is an experience of no value in the marketplace."

This is something aside from the cost of war as we usually think of it. Sometimes it takes a campaign for old clothes to remind us that, on the other side of the world, people are starving. Still in rags, with the ruins of their homes about them, the loss of their pride as a nation and of their self respect as individuals is no less heavy a weight upon them. The road back stretches farther than their eyes can see.

We, the American nation, are doing what we can to help. But that takes care of today only. Where do we go from here? Mutual international confidence has never been so badly needed as it is now.

It has always been easier for each nation to look out for itself—even though much less safe, if history is any indication. Look at them: Caesar's Rome, Foscari's Venice, Napoleon's France, Bismark's Germany, Hitler's Reich—no matter how big you are, you don't stay up there. War keeps changing the face of the world, but what nation wins for very long?

Well, we're trying something else. We have chosen leaders to try to find a way into a future without war. It isn't going to be easy. Men have been trying to outlaw war since the days of Greek civilization, long before Christ. Perhaps, this time, we can do better than those who have preceded us.

KOLD-HOLD MANUFACTURING COMPANY, 500 N. Grand Ave., LANSING 4, MICH.

Thopping Composit ...Defies Georgia's Summer Heat for Customers of Large Macon Store*...With (M) VALVES **Controlling the Cooling System** TEN YEARS of highly dependable service in controlling the cooling system of a leading chain store in Macon, Georgia, is credited to A-P Refrigeration Valves by Macon's Brown-Starr Electric Co. who services the installation.

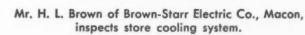




"The job shown in the picture is the installation at a large store here in Macon. I have used A-P Valves on this job to control the cooling system for the last ten years. In the fifteen years I have been using A-P Valves, I have always found them to be very satisfactory."

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DEPENDABLE Refrigerant Values

Federal Alters Firm Name, Will Open New Plant and Makes Changes In Sales Policy

MILWAUKEE—A change in name from Federal Store Equipment, Inc., to Federal Refrigerator Mfg. Co., has been announced by John Romadka, president and general manager. He also stated that his firm will open up a new plant at Waukesha, Wis., sometime after March 31.

vide added capacity and facilities to at least triple our present production and effect savings in manufacturing costs."

Along with several changes in personnel, Mr. Romadka emphasized the new policy of the company will eliminate all sales except those strictly on a distributor or dealership.

basis.

Those who will assist Mr. Romadka are: Ervin W. Herte, vice president and assistant manager; Roy J. Loudon, vice president and distributor for the firm west of the Mississippi; Charles Dieringer, treasurer and director of purchases; E. B. Schmitt, secretary and controller; and A. T. Mickle, sales manager.

The firm's manufactured products are to include refrigerated display cases, walk-in coolers, dough retarders, and a home walk-in.

Refrigeration Research Foundation Reports On Projects Underway, Plans New Activities

Will Produce Operating Manual For Warehouses; Summary of 3 Projects Reveals Interesting Data

By John Sweet

CHICAGO—Members of The Refrigeration Research Foundation, Inc., assembled for their annual meeting Feb. 18-20 in the Edgewater Beach hotel here, listened to reports of past accomplishments and future projects, heard three university professors tell what they are discovering in their foundation-aided research, and elected new officials.

The foundation's sessions were held prior to the 54th annual meeting of the American Warehousemen's Association Feb. 20-22 at the Edgewater. Both joint and separate programs were arranged for the association's two divisions, the National Association of Refrigerated Warehouses and the Merchandise Division.

During the election of foundation officials for the new year, Arnold T. Hampson, of Merchants Cold Storage & Warehouse Co., Providence, R. I., was moved up from vice president to president. He replaced Roy M. Hagen, of California Consumers Corp. and Los Angeles Cold Storage Co. H. C. Diehl continues as secretary and director of the foundation.

In a comprehensive report covering the activities of the foundation since it was established in October, 1943, Mr. Diehl told delegates that \$62,500 had been invested for studies of commodity and engineering or management phases of refrigerated warehousing. He said three projects had been brought to a close, leaving 20 currently on the roster.

Future projects of the foundation were outlined by Mr. Diehl as including the following:

1. A study of several industries and their products, especially those developed during the war, to determine any benefits of refrigerated storage of these products and any new uses for refrigeration.

2. Development of regional emergency research projects for solving day-to-day technical problems of refrigerated warehousing.

3. Special studies of industrial development through the medium of the research planning committee.

4. Preparation of a commodity and operating manual for plant personnel.

5. Development of regional training conferences for warehouse employes at which the essentials of refrigerated warehousing of commodities would be discussed in a "practical and down-to-earth manner."

6. Consideration of four new research studies.

Mr. Diehl also noted the importance of continued cooperation with related organizations and the continued development of the foundation as a repository and clearing house of scientific and engineering information dealing with the refrigeration of commodities. He said membership should be expanded to include not only more of the large warehouses

After the foundation sessions were opened with meetings of the scientific advisory council and the executive, patent policy, and research planning committees, President Hagen explained charts showing data on grants and the overall financial program. One chart depicted the number and value of grants received by institutions as follows:

but also the smaller houses.

Department of Agriculture, one, \$1,200; Columbia U., one, \$2,000; Ohio State, one, \$3,000; U. of Texas, one, \$1,500; Iowa State, two, \$8,000; Kansas State, three, \$7,400; U. of California, three, \$7,450; Louisiana State U., one, \$3,000; Northwestern U., one, \$4,000; Cornell U., two, \$6,000; Michigan State, two, \$4,500; Rhode Island State, two, \$3,500; U. of Nebraska, one, \$1,750; Oregon State, one, \$2,000; Massachusetts Institute of Technology, one, \$5,000.

A highlight of the meeting was the afternoon session Feb. 19 when three supervisors of projects aided by foundation grants briefly discussed some of their findings thus far and their research methods. Speakers were Dr. Belle Lowe, poultry research professor at Iowa State College; Dr. Walter L. Mallman, professor of bacteriology and public health at Michigan State college; and Carl F. Kayan, associate professor in the de-

partment of mechanical engineering at Columbia university.

Dr. Lowe related how poultry, some

stored in tin containers and some in the conventional paper wrappings, were kept at five different temperatures for three, six, and nine-month periods. The temperatures used were 20°, 10°, 0°, -10°, and -20°.

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Dr. Lowe reported, among other things, that she found dessication in all the poultry stored for nine months. The least dessication, she said, occurred in meat kept at -20°. She declared that the longer the poultry was stored, the dryer it became.

Graphs showing the effects of the various temperatures and storage periods on the poultry tested were exhibited and explained by Dr. Lowe. This investigation is still being carried out.

A brief review of his study of the various agencies which can be used to halt or hold down the growth of bacteria was presented by Dr. Mallmann. He discussed the effects of ultra-violet light, carbon dioxide, glycol vapors, hypochlorites, and cationic compounds.

Dr. Mallman said he found that ultra-violet lights will retard the growth of organisms, but noted the importance of proper installation. The lights' effect will be considerably lessened, he pointed out, if care is not taken to insure adequate exposure of foods and surfaces.

In commenting on the use of carbon dioxide, Dr. Mallman reported that tests with 5 to 10% concentrations resulted in a 45 to 90% reduction in bacterial population. He discovered that even a 2½% concentration has a suppressive effect, he said.

Glycol vapors, Dr. Mallman said he believes, do not show much promise. Hypochlorites were examined and found to be selective in their actions, he pointed out.

The cationic compounds have possibilities, Dr. Mallman told the delegates. He pictured their actions as "selective" and said they had proved effective in several tests.

He mentioned experiments during which organisms were "killed" in a matter of seconds by absorbing the compounds, used in spray form. Although the organisms could be revived, he claimed they were dead for all practical purposes. These compounds were used effectively on surfaces in low-temperature rooms, he said.

Dr. Mallman emphasized the importance of keeping surfaces well cleaned. He stated that germicides are only temporarily effective unless washings are performed regularly.

To illustrate the necessity of adequate sanitation, he told of a check he had made of frankfurters before and after being placed in storage. He said the number of organisms increased greatly during storage due to contamination of the air and surfaces.

Using illustrative diagrams, Mr. Kayan showed how one problem of temperature distribution in a complex wall structure, which defied ordinary calculations, could be worked out through electrical analogy. This approach, he explained, is based on the similarity between heat flow and electrical flow and involves use of a model having the same configuration as the original structure.

Mr. Kayan said he is now investigating methods of measuring air velocity in connection with packaged goods stored at various temperatures.

At least one regional training conference is planned for this year, Mr. Diehl said, with regular meetings contemplated if the initial venture is successful. He said the cooperation of the National Association of Refrigerated Warehouses, the American Society of Refrigerating Engineers, and the National Association of Practical Refrigerating Engineers is being sought.

It was explained that each conference would last about five days and be limited to not more than 30 participants. Discussion leaders would be chosen from research, academic, and industrial fields.





-ESTABLISHED 1883 refrigerators
NORTH KANSAS CITY, MISSOURI

Refrigeration Problems And Their Solution

By P. B. Reed

For Service and Installation Engineers



Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

The High-Side Float Valve (Part 2)

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A high-side float is so named because the float chamber is in the high-pressure part of the system and the liquid in the chamber and the float ball floating on that liquid are ahead of the valve orifice.

It operates in much the same manner as a steam trap. The inlet to the float chamber is connected to the condenser outlet so that the liquid refrigerant, as fast as it is condensed in the condenser, is fed into the float chamber.

The float ball is connected to a valve needle that rests on the orifice seat. As the liquid refrigerant flows into the chamber from the condenser the liquid level tends to rise and raise the float ball.

As the float ball rises it lifts the float needle off its seat in the orifice. thus allowing liquid refrigerant to flow through the orifice and out of the float chamber. This tends to cause the level of the liquid to fall, carrying with it the float ball, which in turn pushes the needle closer to or against its seat thus shutting off the flow of liquid.

FEEDS LIQUID REFRIGERANT AS FAST AS IT IS CONDENSED

While the condensing unit is running, the float ball holds the needle off the seat just enough to allow the refrigerant to pass out through the orifice as fast as it is being condensed in the condenser and fed into the float chamber.

In practice, therefore, the float needle does not "hunt" during the time the condensing unit is in operation, but is held almost stationary off the seat.

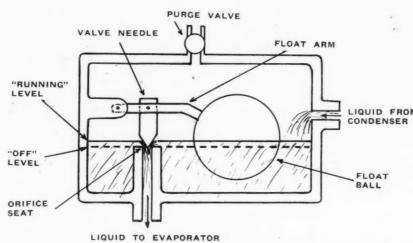
The distance that the needle is held off the seat depends upon how fast liquid is being fed into the float chamber and out into the evaporator; high off the seat when the flow of refrigerant is rapid, not much off the seat when the refrigerant flow is

THE LIQUID LEVEL

While the condensing unit is running and refrigerant is being liquified in the condenser and fed into the float chamber, the level of the liquid in the chamber is slightly above the valve orifice. When the condensing unit stops, some condensation of refrigerant will continue and the liquid will be emptied into the float chamber.

Finally, though, there will be no

How the High-Side Float Valve Operates



This drawing illustrates the manner in which the high-side float valve Importance of float ball calibration and other essentials in its operation

more liquid refrigerant condensed in the condenser nor liquid fed into the @ float chamber. Then the liquid level will drop to the low level; to the level just even with the orifice. Beyond this no more liquid can flow out of the orifice.

FLOAT BALL CALIBRATION IS IMPORTANT

If the float ball is properly calibrated the needle will have come to rest on the seat by this time, and will prevent the hot gas from the condenser from flowing through the float chamber and into the evaporator.

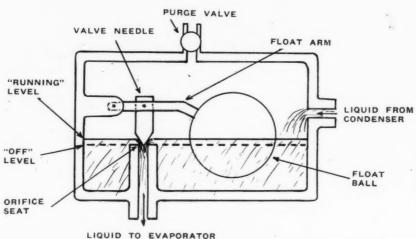
This would be undesirable as it would allow the heat in the condenser to pass into the evaporator just as happens with the capillary tube.

REQUIRES ACCURATELY FITTED NEEDLE AND SEAT

The float ball does not hold the needle tightly against the orifice seat. As soon as the "closing level" is reached the needle will touch the seat and prevent further flow, further lowering of the level and further pressure against the needle tending to press it against the seat.

The needle will thus ride lightly on the seat and to prevent leakage the needle and seat must fit one another very accurately. In some constructions the needle is secured loosely to the float arm so that it is selfcentering.

(To Be Continued Next Week)



operates. Dotted lines show how refrigerant level in the float chamber serves to regulate the flow of the refrigerant into the evaporator. are described in the accompanying article.

CARTRIDGE DEHYDRATOR With Side Outlet and Dispersion Tube This exceptional design permits easy removal and replacement of cartridge without loosening end connections. Dispersion tube for increasing drying efficiency and minimizing pressure drop is incorporated as integral part of refill cartridge. Ask your jobber for it. Filled With Silica Gel or Activated Alumina HENRY VALVE CO. 1001-19 N. SPAULDING AVE.

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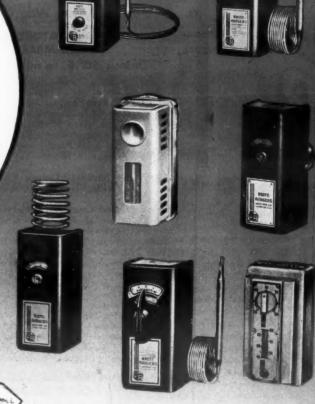
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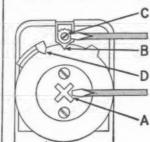
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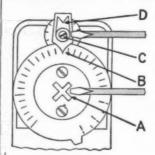


ADJUSTMENT OF TEMPERATURE CONTROLS



C Insert screwdriver at point "A" and turn dial until indicator "B" points to the temperature at which the control is to open the circuit. Then turn screw "C" until you get the desired differential as indicated by the difference in temperature between points "B" and "D."

ADJUSTMENT OF PRESSURE CONTROLS



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Industry Will Face Fractional H. P. Motor Shortage for Several Months

Metal, Labor Scarcity Curb Output, J. H. Jewell Tells Purchasing Agents

CHICAGO—Fractional horsepower motors, probably the most critical item not only in the electrical industry but in many other industries today, will continue to be scarce for months to come, the National Association of Purchasing Agents, meeting last month in Chicago, were told by J. H. Jewell, manager of industry sales departments for Westinghouse Electric Corp.

The dropping off of orders for large DC motors needed for Navy and Maritime shipboard use will allow demands for these to be met, he stated, but the demand for small AC motors, particularly single-phase motors for rural use, will not be able to catch up with the heavy increase

in orders probably before next year.

The availability of electrical equipment throughout 1946, he outlined, will be dependent on four major

- 1. Steel
- 2. Copper
- 3. Uninterrupted manpower
- 4. Engineers and draftsmen
- 1. Steel exceeded all time production records during the war, and since then has been doing a tremendous job of reconversion, Mr. Jewell pointed out. But steel production today faces an unprecedented demand from appliance, electrical, automotive, and other metal industries.

Even before strikes tied up production lines, it was clear that steel production could not serve all these to the capacity of their needs, he said, It had been accepted that the industries using steel would, during 1946 at least, have to limit their own production schedules. Those tentative schedules now will have to be pushed even farther back.

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The electrical industry, for instance, uses silicone steel, plate steel, sheets, bars, forgings, and castings. The steel needed for fractional horsepower motors is low grade silicone steel, and this item is the biggest shortage item on the list, Mr. Jewel declared.

SILICONE NOT PLENTIFUL

Transformers, generating equipment, and larger motors require higher grade silicone, and this will be easier to supply, he said. But not plentiful; for Swedish industries now are drawing to some extent on our own limited supply, whereas Sweden used to be self sufficient in this commodity.

The war built up enormous stockpiles of plate, bar and sheet steel, forgings and castings, Mr. Jewel continued, but the demand for these, too, has increased, and their production must be scheduled on an allocation basis for some time to come.

2. Copper stands in second place only because the total quantity needed is less tremendous than steel; but its proportional importance to electrical equipment production certainly is no less, he explained.

COPPER SUPPLY SHORT

Our domestic supply of copper clearly is inadequate to meet the country's need, he said. That need is being met only through the purchase of considerable quantities of South American copper. This balancing is possible, however, only through the Metals Reserve Corp.'s subsidy, which ponies up the difference between what our industry can afford to pay and what South America is asking.

It is true that during the war large plants were built or converted to produce copper, Mr. Jewel admitted, but the copper they produced went almost entirely into brass for shells and other materiel.

And so today there is still a basic shortage of equipment for making such items as cable, and flat and round wire, and of equipment for turning out insulation for copper wire, all of which are essential to small motors and transformers

TIN MINES DESTROYED

Less critical as a shortage item now, but one that may become so soon, is tin. The Far Eastern mines and production facilities of the Dutch were almost completely jammed or destroyed by the Japs, and the future supply of tin for the United States will depend mainly on the length of time it takes to restore them.

3. Labor troubles in copper production preceded strikes in the steel and electrical equipment industries, Mr. Jewel reminded his audience. Two out of every three of the largest copper manufacturers are still watched over by picket lines.

ENGINEERS SCARCE

4. Engineering and drafting help is very limited, he stated. Leaders in this field have estimated the shortage at 40,000 trained engineers. Engineering schools have turned out very few graduates in the past four years, yet during this time the need for trained technical men has multiplied faster than ever before.

This is a shortage, moreover, Mr. Jewel pointed out, that will continue to be felt for some years to come.

Meanwhile, he added, the demands of the electrical industry will proceed to touch you in ways that you seldom realize. Electrical equipment requires quantities of cotton cloth and tapes and sleeving.

Enough to take the shirt off your back before it has a chance to get

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Naval Medical Center—Bethesda, Md.

Naval Medical Center—Bethesda, Md.
Naval Bureau of Aeronautics—San Diego, Cal.;
Seattle, Wash.; Norfolk, Va.
Univ. of Pennsylvania—Medical School.
Yale University—New Haven, Conn.
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—Bendix, N. J.

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ALL-WEATHER ROOMS (plus 165° F. to minus 125° F. with Maximum Humidity)

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Fairchild Aviation Corp.—New York, N. Y.
Grumman Aircraft Corp.—Bethpage, N. Y.
Western Electric Co.—Kearny, N. J.
Naval Research Lab.—Anacostia, D. C.

U. S. Navy—Insulation of Barges.
U. S. Navy—Insulation of Hospital Units.
Karl W. Flocks Co. — Transportation Cabinets
for serums, vaccines, plasma, etc.
Cornell University—Apple Storage Rooms.
Mathieson Alkali Co. — Containers and truck bodies for transportation of dry ice.

Wm. E. Schuppenhauer Co., Chicago — Candy Storage Rooms.

steel insulation —the superiority of which was proved in vital war projects

FERRO-THERM IS THE KIND OF INSULATION YOU HAVE BEEN WAITING FOR

During the war, Ferro-Therm was used only in high-priority and important governmental insulation projects. This steel insulation solved problems of extreme temperature maintenance that demonstrated its superiority over all other insulating material.

The list of installations at the left are demonstrations of the kind of performance that Ferro-Therm gives. Our engineers can now apply to your insulation problems the same material and the same "know-how" that were the solution to these critical wartime problems. Write to us today about your requirements.

AMERICAN FLANGE & MANUFACTURING CO. INC. Ferro-Therm Division 30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

> Hogan & Company, Eastern Distributors 383 Madison Avenue, New York 17, N. Y.



STEEL INSULATION

Play Centers to Have 'Tailored' Cooling

CHICAGO - "Tailored" temperatures, controlled to afford the greatest comfort for patrons according to the activities in which they are engaged. will be one of the outstanding features of new "multiple-enterprise" recreation centers planned for several United States cities.

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The new projects, designed to meet the recreational demands of all types of pleasure seekers, will include movie theaters, bowling alleys, billiard rooms, skating rinks, shops, restaurants, and, in some instances, night clubs.

According to reports to the Refrigeration Equipment Manufacturers Association, the recreation centers will be completely air conditioned. Temperature and humidity will be regulated in the various sections to fit the physical exertions of the patrons.

Sections of the center such as the theater, restaurant, and night club, where the patrons are relatively inactive, will be kept at higher temperatures than the bowling alleys, skating rink, and billiard room, where the activity is greater. Temperatures in the shops will be kept at levels to insure the greatest comfort for patrons and sales people.

Projects on which contracts already have been let include centers in Youngstown and Toledo, Ohio, and Detroit. A fourth project in Nashville, Tenn., started before the war. will be completed as soon as labor and materials are available.

2 Nebraska Firms Formed

OMAHA, Neb. - Two new home appliance firms have recently been organized in Nebraska. World Laboratories has been incorporated here by Leo and Helen Myerson of Council Bluffs, Iowa with \$100,000 capitalization. Alfred A. Fiedler was listed as resident agent. In Lincoln, Neb., William A. Fry and J. E. Cole have incorporated Frigid Service with \$25,000 capital stock.

Both firms will sell and service refrigerators as well as other appliances.

Weber Prices --

(Concluded from Page 1, Column 2) Supplementary Order No. 119.

Resellers of Weber commercial refrigerators (except those manufacturers who buy the equipment for use in other items) may add to their present ceiling prices the actual dollar and cents increase in their costs resulting from the increases granted Weber.

Prices established for Weber on the new basis will be subject to discounts and allowances, including transportation allowances and price differentials, which are at least as favorable as those the manufacturer extended or rendered on Oct. 1, 1941.

Ceilings Listed on 4 Frigidaire Ranges

DAYTON, Ohio - Ceiling prices have been established by OPA for Frigidaire electric range models AI-6, BI-17, BI-17C, BI-60, and BI-70, effective on or after Feb. 11, 1946.

Ceiling prices for sales to retail dealers and to ultimate consumers, including the Federal excise tax, are as follows:

Model	price for sales to retail dealers (each)	Ceiling price to ultimate consumer (each)
AI-6	\$ 82.43	\$118.50
BI-17	121.18	180.50
BI-17C	133.00	198.50
BI-60	160.66	240.00
BI-70	200.44	299.50

Ceiling prices for sales to retail dealers are freight prepaid, and subject to each seller's customary terms, discounts, allowances, and other price differentials. Retail dealers must provide delivery, installation, and all necessary services connected with the sale.

For sales to the consumer, ceiling prices include delivery, a one-year warranty, and installation only to the extent of connecting the range to electric facilities provided by the consumer, if such connection does not require any additional materials.

If a range cord is required and is furnished by the retail dealer, \$3.50 may be added to the ceiling prices.

ANOTHER SANITARY "First" A PACKAGE SALE IDEA YOU CAN REALLY PROMOTE . . .

COMBINING Our Improved Model 2126 Ice Refrigerators with Quicfrez Farm-and-Home Lockers — An Economical Combination Offering Short Storage and Low Temperature Freezing.



"PACKAGED REFRIGERA-TION" service for the average American home in a practical and economical "package," can be provided by the installation of a conveniently located SAN-**ITARY** Ice Refrigerator and a SANITARY Quicfrez Low Temperature Cabinet. The Refrigerator shown in the picture is not the unit now available.

The Model 1245 QUICFREZ Locker

With Separate Freezing Compartment — 12.5 Cu. Ft. Food Storing Capacity. 500 to 600 lb. Frozen Meat Capacity. Initial Freezing Compartment — 3 Cu. Ft.

Built by one of the pioneer producers of Low Temperature Cabinets, the Quicfrez has been thoroughly proven in performance by more than six years' continuous service.

THIS IMPROVED NO. 2126 SANITARY ICE REFRIGERATOR IS **AVAILABLE NOW**



5 Cu. Ft. Food Capacity 75 lb. Ice Capacity Re-Ices With 50 Lb. Block

Thoroughly Rock Wool insulated, with steel exterior and interior high-baked white enamel finished, rust-proofed steel ice rack, door pans and shelves, this SAN-ITARY No. 2126 Ice Refrigerator has been fully performance-test-

ed at the factory. It is now in production and it will be the only SANITARY Ice Refrigerator Model available in 1946.

SANITARY REFRIGERATOR CO.

cturers of Ice Refrigerators for More Than 40 Years -Quicfrez Farm Locker Plants Since 1939

Weber Launches New \$1,250,000 Expansion

LOS ANGELES - A postwar expansion program running well over \$1,250,000 is being effected by Weber Showcase & Fixture Co. Governmentbuilt additions to the main plant here have been purchased, and the company has acquired two additional plants in this city, in addition to the one in El Paso, Tex., which was purchased a little over a year ago.

Expansion figures are not confined to plant building alone, but include more than a half million dollars worth of improvements in plant interiors and new time saving machinery that will speed production of postwar equipment.

The company's origin dates back to 1924, at which time a new factory building, occupying eight acres of a 16-acre tract in the heart of the Los Angeles industrial district, housed the organization. At the time of conversion to war production, the greater part of these premises were being used to manufacture approximately \$3,000,000 worth of equipment annually, say Weber officials. After the addition of the new buildings, total plant area covered 12 acres.

Plans for national distribution of Weber products and the production of food freezer cabinets for home and farm use made necessary a more extensive expansion program to meet production schedules, according to the Weber management.

In line with these requirements, the company purchased and put into operation a plant in El Paso, which provided an additional 200,000 sq. ft. of floor space. This was followed a few months later by the purchase of the J. J. Niederer Woodworking Co. in Los Angeles. Shortly after, another plant was acquired in this city, bringing the total manufacturing facilities in the four plants to more than 750,000 sq. ft.

An extensive business volume, including the demand from both a large clientele and a distributor sales organization of more than 250 outlets, has resulted in the decision to use the original building of the main Los Angeles plant and the entire plant at El Paso for the manufacture of standard commercial refrigerator, soda fountain, frosted food and ice cream cabinet equipment, says the management.

The newly acquired addition to the main Los Angeles plant, and the two additional buildings here will be devoted to the manufacture of special fixtures and wood working for Southern California stores. fixtures include all types of showcases, wall shelving, grocery and market fixtures, wall paneling, and special fixture requirements.

Quality Readership THIS IS FOR YOU!

Highest paid circulation in the field -highest subscription price (\$4 yearly and well worth it!) - no premiums - no discounts - no subscription salesmen on the roadno special deals. Only ABC, ABP publication serving the industry. Extraordinary high renewal rate. Read, studied, depended upon and believed by the men who count in refrigeration and air conditioning because it tells them what they need to know. Here are your pretested buyers, the prime accounts, the ones who'll stay in business, grow and prosper. You can be sure they will see your message in "the newspaper of the industry." Keep in regular contact with 90% of the industry's purchasing power (as often as once a week) with advertising in AIR CONDITION-ING AND REFRIGERATION NEWS, now celebrating its twentieth year.





HERE IT IS! 28,000 circulation, the highest in the field—reaches practically everybody in the business, big, little and fringe buyers. Lasts all year—consulted all year - the standard industry buying guide since 1932. 300 pages of vital data on who makes what and where — companies, addresses, personnel, products — classified and crossindexed for daily usefulness. The directory offers a means of reaching out with your message to ALL the industry at a cost consistent with the buying ability of the thousands of little people — a full year coverage at the rate of only \$200 per page. Reserve space now in the 2nd International Edition of REFRIGERATION AND AIR CONDITIONING DIRECTORY.

450 W. FORT STREET

DETROIT 26, MICHIGAN



Wilson ZEROSAFE Reach-In Farm Freezer Is Years Ahead ...

SINCE 1939 Enthusiastic public acceptance and constant daily use have proved Wilson ZEROSAFE the greatest reach-in farm freezer in America . . . These years of trouble-free ZEROSAFE service are your guarantee that "Freezers by Wilson" will continue to revolutionize American menus by making frozen fresh foods a part of daily living. THE NEW ZEROSAFE IS NOW GREATER THAN EVER . . . There is a ZEROSAFE size for every need: 15 cu. ft. (illus.) and 25 cu. ft. Self-Contained Models; and Sectional Models from 22 cu. ft. up to 120 cu. ft.

For franchise information, address Desk 11:

WILSON REFRIGERATION, INC. DIVISION OF WILSON CABINET CO. **SMYRNA** DELAWARE





RRANCHES IN PRINCIPAL CITIES MAIN OFFICE 440 LAFAYETTE ST. New York 3, N. Y.

PURO FILTER CORP. OF AMERICA DRINKING WATER SPECIALISTS FOR 40 YEARS.

HEAT TRANSFER EQUIPMENT COIL COMPANY AINT LOUIS, MISSOURI

REFRIGERATION ACCESSORIES

Units.
• X-Ray Refrigerating Units.

- Instantaneous
 Water and Beverage Coolers.
 Oil Separators.
 Two-Temperature
 Valves.
 Accumulator Heat
 Exchangers.

TEMPRITE PRODUCTS

CORPORATION 47 PIQUETTE AVENUE DETROIT 2, MICHIGAN

Get These Profits

Refrigeration and insulation distributors make an extra profit selling the NEW

MASTER FOOD CONSERVATOR

Master Manufacturing Corp. 121 Main St. Sioux City 4, Iowa

800,000 CONSERVATORS IN USE

STANGARD

Prime Surface

COLD PLATES

For Maximum

Refrigerating Efficiency

THE STANGARD-DICKERSON

46-76 Oliver Street . Newark 5, N. J.

STANGARD KNOWS REFRIGERATION

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PATENTS

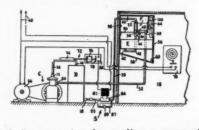
Week of Feb. 5

2.394,081. LUBRICATOR FOR REFRIG-2,394,081. LUBRICATOR FOR REPRIG-ERATING SYSTEMS. Harvey B. Lawton, Bloomington, Ill., assignor, by mesne assignments, to Eureka Vacuum Cleaner Co., Detroit, Mich., a corporation of Michigan. Application May 8, 1942, Serial 2 Claims. (Cl. 184-38.)



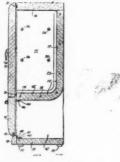
1. In a hermetically sealed refrigerating system having working parts requiring lubrication positioned therewithin and wherein pressures other than atmospheric may obtain, the combination of a lubricator for said working parts which com-prises a pressure-tight collapsible lubri-cant container, a conduit communicating cant container, a conduit communicating said container with said system at a point adjacent said working parts, pressure exerting means for collapsing said container as desired to force lubricant through said conduit to said system, and means associated with said last mentioned means for preventing atmospheric pressure collapse of said container in the event that reduced pressure should obtain within

2,394,109. COOLING APPARATUS. Andrew Sanchez, New York, N. Y. Application Sept. 11, 1940, Serial No. 356,331. 14 Claims. (Cl. 62-126.)



1. In apparatus for cooling a compart-ment, means within the compartment for absorbing heat from the air in the compartment, means for supplying refrigerant to the heat-absorbing means, means for circulating air in the compartment, and means driven by the refrigerant being supplied to the heat-absorbing means and by spent refrigerant from the heat-absorbing means for driving the circulating means.

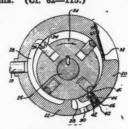
2.394.134. PLASTICIZED REFRIGERA-TOR CABINET. Russell W. Ayres, Evansville, Ind., assignor, by mesne assignments, to Seeger-Sunbeam Corp., a corporation of Minnesota. Application Oct. 8, 1941, Serial No. 414,164. 2 Claims.



1. A refrigerator cabinet formed by a combined side wall and top member of inverted **U** shape, a combined back wall and compartment bottom member of L shape the L-shaped member having close inter-

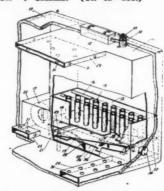
fitting engagement within the U-shaped member to form a forward opening food compartment, the legs of the **U**-shaped member extending downwardly below the bottom of the **L**-shaped member to form side enclosure walls of a storage compartment below the food compartment, and transverse horizontal tie rods extendand transverse horizontal tie rods extending in a medial plane through the horizontal and vertical portions of the L-shaped member and through the vertical sides of the **U**-shaped member, and a bottom closure member secured trans-versely across the lower end of the storage compartment and having reinforcing connection with the side of the U-shaped

2,394,166. REPRIGERATING APPARA TUS. J. Lowell Gibson, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application June 30, 1943, Serial No. 492,848. 3 Claims. (Cl. 62—115.)



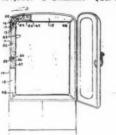
1. In a refrigerating system; evaporator neans, condenser means; compressor neans; and means connecting said means, means: evaporator means; condenser means, and compressor means in refrigerant flow relationship; said connecting means including a pressure regulating means con-netced between said condenser means and said evaporator means for controlling the flow of refrigerant to said evaporator means; said compressor means comprising a casing forming an oil reservoir, a multi-ple vane compressor within said casing having a first outlet port and a second outlet port, one of said ports comprising a permanently open port and the other of said ports comprising a pressure operated valve, and means for discharging the compressed refrigerant leaving one of said ports into said oil reservoir so as to drop out oil entrained by the refrigerant into said oil reservoir.

2,394,201. REFRIGERATING AND CON-DITIONING SYSTEM FOR VEHICLES. George B. Pirnie, Center Point, Iowa. Application April 17, 1942, Serial No. Application April 17, 1942, Se 439,382. 7 Claims. (Cl. 62—133.)



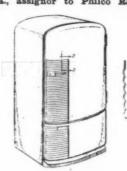
1. In a cooling system for enclosed spaces using ice and salt, an enclosing conditioning chamber, a brine tank for receiving brine from melted ice and supporting ice within the conditioning chamber, conduit means for supplement-ing the heat transfer surfaces of the brine tank, and means including said conduit means for circulating air from the space to be cooled over the heat transfer surfaces of the brine tank and through the

2,394,229. REFRIGERATOR CALL Onlo, assignor to Westinghouse Electric Corp., 2.394.229. REPRIGERATOR CABINET. East Pittsburgh, Pa., a corporation of Pennsylvania. Application April 2, 1942, Serial No. 437,333. 3 Claims. (Cl. 220—15.)



1. In refrigerator cabinet construction comprising an outer shell and a rectangular sheet metal liner located within the outer shell, said liner having an open vertical front, the novel means for supporting the front portion of said liner from said outer shell comprising a plurality of sheet metal heavens and plurality of sheet metal hangers, each of said hangers being formed into an angle, said hangers being formed into an angle, said angle being positioned to straddle one of the horizontal edges of said rectangular liner and fused to said liner to reinforce the straddled portion of the same, said hanger having a flange at its forward edge, said flange lying near but spaced from the front edge of said rectangular liner a distance equal to at least four times the thickness of the sheet metal from which said liner is formed. metal from which said liner is formed, said liner being coated with vitreous enamel after the hanger is fused thereto and means for securing said flange to said outer shell.

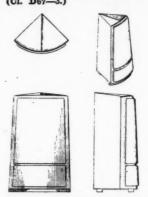
143,713. DESIGN FOR A REFRIGERA-TOR CABINET. Donald E. Dailey, Bryn Mawr, Pa., assignor to Phileo Radio &



Television Corp., Philadelphia, Pa., a corporation of Delaware. Application March 29, 1945, Serial No. 118,777. Term

of patent 7 years. (Cl. D67-3.)
The ornamental design for a refrigerator cabinet, as shown and described.

143,753. DESIGN FOR A REFRIGERA-TOR CABINET. Anthony Pinelli, Brooklyn, N. Y. Application March 24, 1945, Serial No. 118,678. Term of patent 3½ years. (Cl. D67—3.)



The ornamental design for a refrigerator

New Residential Wiring Handbook Available To Contracting Firms

NEW YORK CITY-The "Handbook of Residential Wiring Design," a 32-page handbook prepared by the All-Electrical Industry Committee on Interior Wiring Design, Room 2650, 420 Lexington Ave. here, representing 10 leading trade associations and technical societies in the electrical field, is now off the press.

A companion piece, the "Handbook of Farmstead Wiring Design," is expected to be published in March, according to the committee.

The residential handbook is a complete revision of the residential standards appearing in the Handbook of Interior Wiring Design published in 1937, and is now available for the first time under separate cover. The farmstead handbook is the first of its kind to be published.

The electrical industry's postwar wiring program will be spurred by wide distribution of the handbooks to the home building, home buying, and home modernizing public, the committee feels. Low quantity prices have been established, and over 100,000 copies of the handbooks were ordered in advance of publication.

The handbooks are the result of over a year's planning and preparation by the joint committee representing the following organizations: American Institute of Electrical Engineers, American Home Lighting Institute, American Society of Agricultural Engineers, Edison Electric Institute, Illuminating Engineering Society, International Association of Electrical Inspectors, National Electrical Contractors Association, National Electrical Manufacturers Association, National Electrical Wholesalers Association, and Radio Manufacturers Association.

The handbooks, according to the committee, will be of substantial aid to architects, engineers, contractors, lending institutions, and other organizations concerned with home building and planning. Prospective home owners and those now planning remodeling of their present homes will find practical, efficient wiring systems, with both floor plans and text easily understood by men with no technical experience.

The residential handbook summarizes the latest authoritative experience of the electrical industry on wiring systems adequate for present and future needs in the home. Both floor plans and text show how every room in the average home should be wired, with the number, type, and location of outlets recommended by the committee's experts. Pages on circuit requirements, service entrances, and a sample wiring specification form are included, with electrical symbols for floor plans.

A need for better wiring in old homes and for the millions of dwellings to be built in postwar years has long been obvious to the electrical industry. The twin bottlenecks of inadequate wiring capacity and too few outlets to permit unrestricted use of electrical appliances have hindered promotion and selling throughout the nation. The practical, up to the minute and reliable information contained in the residential and farm wiring handbooks can be employed to aid millions of home owners to enjoy all their present appliances, and to add new electrical servants in confidence that their service will not be impaired by lack of outlets or

CLASSIFIED ADVERTISING

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RATES for "Positions Wanted" \$2.50 er insertion. Limit 50 words.

RATES for all other classifications \$5.00

per insertion. Limit 50 words.
Advertisements set in usual classified style. Box addresses count as five words, other addresses by actual word count.

PAYMENT in advance is required for advertising in this column.

POSITIONS WANTED

Mechanically VETERAN. 28. married. inclined with 8 years experience servicing and installing commercial refrigeration, Desires position with reliable firm where promotions are granted by one's ability and efficiency. Wishes to locate in the midwest. Write details. Mr. C. E. midwest. Write details. Mr. C. Nordstrom, Box 259, Painesdale, Mich.

MAN: 42 years old, 18 years in refrigeration and air conditioning industry. Competent engineer, held executive and promotional positions with major manufacturers and distributors, both foreign and domestic territories. Desires position managing commercial refrigeration and air conditioning operation. Minimum consideration to start, \$6,000. Available March 31st. Box 1927, Air Conditioning & Refrigeration News. & Refrigeration News.

EX-SERVICEMAN, 30 years old, desires position as salesman or service engineer. years experience in own refrigeration 7 years experience in own refrigeration sales and service business before war. Life work. Specialized in Commercial, Industrial, and Ammonia refrigeration. Car, tools, and willing to go anywhere in the U. S. References. Available at once. Box 1940, Air Conditioning & Refrigeration News.

AVAILABLE APRIL: Refrigeration me-AVAILABLE APRIL: Refrigeration mechanic trained in technical air conditioning, domestic and commercial service, desires contact with reputable concern, Christian preferably, in the States. Would consider partnership basis as supervisor or will be pleased to hear from manufacture in the state of the stat turer specializing in low temperature tests on merchandise processed foods, etc. Box 1942, Air Conditioning & Refrigeration

REFRIGERATION ENGINEER: 30 years old, being released from Navy in April.
Particularly interested in connection with coil manufacturer. Number of ideas on coil design and unit cooler (low tempera-ture installations) defrosting equipment which should prove valuable. Before war, in business for self — locker plant construction and service. Box 1943, Air Conditioning & Refrigeration News.

AVAILABLE MARCH: Twenty experience in contracting, installing, and service engineering of air conditioning and refrigeration units. Available pending release from military installation about March 20. Location in warm climate desired. Box 1944, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

APPLIANCE MANAGER: Experienced executive. Complete charge of department in large furniture store. Capable of buy-ing and supervising all phases of operation. Top lines plus aggressive promotion policy. Renumeration commensurate to past experience. Future unlimited. Write in detail to P. O. Box 387, Youngstown,

FACTORY MANAGER: Large manufac-turer in small Northern Indiana city has opening for factory manager. Must have proven production record with experience in manufacture of sheet metal appliances or products. Experience with porcelain plant desirable and good personnel record necessary. Opportunity to advance with a growing business. Box 1933, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WANTED to purchase: Air conditioning equipment, Carrier type 41B and 50M, preferably new. Also other makes. ATMOSPHERIC CONTROL CO., 716 preferably new. Also other ATMOSPHERIC CONTROL CO. Marquette Bldg., Detroit 26, Mich.

WANTED TO BUY: 4, 6, or 8 ft. new and used single and double duty meat display cases, with or without condensing units, crated for shipment unless located in Baltimore, Philadelphia, or New York, which we can pick up uncrated. Write full particulars to GENERAL TRADING CO., Danville, Va.

EQUIPMENT FOR SALE

FOR SALE: 500 used ice cream cabinets, direct expansion \$10 per hole, Brine \$5 per hole "as is." All sizes from 2 to 10 holes. Re-manufactured A.C. condensing units ¼ hp. up to 1½. Write for particulars. EDISON COOLING CORP., 210 East 140th \$1, New York 51 N Y. 310 East 149th St., New York 51, N. Y.

BEVERAGE COOLERS: 6 ft. capacity 22 BEVERAGE COOLERS: 6 ft. capacity 22 cases; 8 ft. capacity 30 cases. These are dry coolers with heavy duty coils and one forced-air fan in 6 ft. model, two in 8 ft. model. Both have stainless stel doors and trim. Immediate delivery. GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12, N. Y., STuyvesant 9-1222.



DISPLAY CASES

COOLERS

REFRIGERATORS

 HOME FREEZERS AMANA SOCIETY AMANA, IOWA

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10 New 'Super' Super Markets on Coast Complete, Pre-cooked Meals Ready for Freezing J. L. Ledeen Takes Over To be Built Around Refrigeration Units

Refrigerated Tables Will Permit Open and Accessible Display for Frozen Foods

SAN FRANCISCO - Construction of 10 new "super" super markets built around \$800,000 worth of refrigerating units will be started here immediately by Lucky Stores, Inc., announces Charles Crouch, president of the West Coast super market

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The housewife's growing demand for frozen foods will make refrigeration the core of the new markets currently planned here, Mr. Crouch said.

Labeling refrigeration as the "most vital part of a modern store," Edward Keil, director of Lucky Stores, said:

"Our frozen food sales are becoming increasingly large, but their display is our major problem. Frozen items now are stacked in a deep, refrigerated chest which becomes a sort of grab-bag for the customer. After a hundred women have dug around looking for a box of green peas, there's chaos."

In the "super" super markets, he continued, frozen foods will be much more accessible. They will be piled atop refrigerated tables which will keep frozen foods at -17° F. at table surface and -2° F. at the top of the pile. Temperature of the table tops will be so regulated, he added, that fresh foods such as lettuce and cottage cheese can be chilled.

According to the plans issued by the firm, each "super" super market will have 64 ft. of these frozen food tables compared with an average 10 ft. of space provided in present stores. A total of 88 ft. of space in each store will be devoted to refrigerated vegetables; 44 ft. to dairy products; 65 ft. to meat; and bakery goods will get 70 ft.

Mr. Crouch also outlined a new color-packaging idea that the company will try out on some frozen items in order to reduce unnecessary handling. "People have no time to waste reading labels," he said. "You have to tell your whole story quickly to their eyes. Each time a package of frozen food is handled its life is shortened."

In line with this policy, Lucky's dairy supplier is preparing ice cream in a new type carton for merchandising on the sub-zero table tops, Mr. Crouch declared. Strawberry ice cream will appear in a strawberry colored box, chocolate in a brown carton, and so on.

In addition, cellophane packages will cover all fresh vegetables sold in the new super markets, all the cleaning, trimming, and packaging will be done in the field by the firm's California vegetable suppliers, Mr. Crouch indicated.

It will be necessary to chill most vegetables to about 40° F. at the field plants in order to prevent wilting, he stated, but they will then be moved to stores in "reefer" trucks and kept cold on refrigerated tables until purchased. Growers recognize the necessity of such "dressing" since fresh foods in the future must compete with "pot-ready" quick-frozen

Standardized meat cuts for prepackaged sale in super markets is another development Mr. Crouch is said to be working on with a national packer. Roasts, for example, will be cellophane-wrapped in 4 oz., 6 oz., or 8 oz. sizes; and lamb chops will come in packets of two, four, or six. The objective is somedayto have all meats cut and packaged in the packing house and retailed on a selfservice basis.

Each new "super" super market, costing from \$300,000 to \$350,000 apiece, will be 175 ft. long by 120 ft. wide, with an equal space set aside for parking, corporation specification say. Lucky's present 29 super markets average 75 ft. by 111 ft.

complete meals here are about to be wheeled into the quick freezing room of the Maxson Food System plant at Queens Village, N. Y. The food is assembled on cardboard plates and sealed into specially treated envelopes for storage. In 10 months this frozen foods system has supplied approximately 500,000 meals to the Naval Air Transport Service. Planning consumer production on a large scale, Maxson Food System intends to build plants in various of the United States.



Dr. Johnson Joins G-E Consumers Institute

BRIDGEPORT, Conn.-Dr. Martha Johnson, formerly head of the division of analytical chemistry in the central laboratories of the General Foods Corp., Hoboken, N. J., has joined the staff of the General Electric Consumers Institute, Miss Elizabeth Woody, Institute director, has announced.

Dr. Johnson will supervise research activities in the Institute's appliance test rooms and laboratories. She has had long experience in coordinating research activities with manufactur-

ing operations and home economics work; and just before coming to Bridgeport, she finished setting up a new product control laboratory for General Foods.

A graduate of Mt. Holyoke College, Dr. Johnson earned her Ph.D in biochemistry in 1933 at the University of Chicago.

Combination Super Market, Locker Plant Planned

SIDNEY, Neb. - Rudy Munderloh and Clifford Jensen of Gurley, Neb., have announced plans for construction of a freezer locker plant here. A super market will be included in the plant, and work will start as soon as weather permits.

Engineering Sales for Hammond Drierite Co.

XENIA, Ohio-J. L. Ledeen has joined the staff of the W. A. Hammond Drierite Co. as manager of engineering sales, it is announced. In his new position, Mr. Ledeen will seek to further applications for Drierite, a drying agent used for drying solids, liquids, and gases.

Affiliated with General Electric Co. for over 16 years, Mr. Ledeen was one of the early organizers of the company's air conditioning department at Bloomfield, N. J. During the war, he assumed charge of application engineering on aircraft electrical systems at G-E's aviation division in Schenectady, and contributed toward the development of special weapons of armament and A-C power for military aircraft. More recently he has been responsible for many electrical improvements in commercial aircraft.

A graduate of the University of Michigan and of General Electric's advanced engineering course, Mr. Ledeen pioneered the application of Drierite for solving certain high altitude problems in aircraft. He is the designer of the unusual and very successful air conditioning system now in operation in the Walt Disney studio at Burbank, Calif. He is also a writer and speaker on technical subjects.

Mr. Ledeen will spend much of his time in the field working with engineers and chemists in industry. He will make his headquarters at Xenia,

1,500 Dealers, Salesmen OPA Lists Prices on 3 Attend McDavid Showing Martin Home Freezers

BIRMINGHAM, Ala. - More than 1,500 dealers and salesmen recently attended a party and special exhibition commemorating the twelfth anniversary of the R. P. McDavid & Co., appliance distributor for Alabama and west Florida.

Among those attending the show given by the firm, which is a distributor for Coolerator refrigerators and electric home freezers, and ABC electric washers and ironers, were representatives of 11 manufacturers, as well as prominent local officials, Robert P. McDavid, president, de-

clared. Souvenir cigar lighters and buffet refreshments were made available to the guests who witnessed a special display of home appliances, furnished for the occasion by the 28 manufacturers the firm represents, it was further stated.

In addition, those attending were shown films of the Rose Bowl game between University of Alabama and University of Southern California.

Virginia Studies Bill To License Lockers

RICHMOND, Va.-A bill providing for licensing and regulation of frozen food locker plants was introduced in the Virginia Legislature by Delegates James O. Stickley and George W. Taliaferro of Harrisonburg, C. G. Quesenbery of Waynesboro, and Charles H. Phillips of Richmond.

The proposed legislation would authorize the State Department of Agriculture to control the general operation of all frozen food plants in the state, and would require such plants to obtain licenses from the

department before they could operate. Under the bill, license fees would range from \$10 to \$25 annually; licenses would be issued automatically upon compliance with rules and regulations laid down by the State Board of Agriculture. All employes of frozen food plants would be required to have health certificates renewed every six months.

SAN ANTONIO, Tex. - Ceiling prices for three models of Lotemp freezing cabinets manufactured by Randolph Martin Mfg. Co. here were quoted by OPA in Order 172, MPR 591, as follows:

On sales to—

Model No.		Dis- tribu- tors	Deal- ers	con- sum- ers
700	7 cu. ft.			
	¼ hp. condensing unit	\$155	\$186	\$310
1000	10 cu. ft.			
	¼ hp. condensing unit	180	216	360
1400	14 cu. ft.			
1	⅓ hp.			
	condensing unit	230	276	460

Montreal R.S.E.S. Hears Talk on Frozen Foods

MONTREAL, Canada - "Frozen Foods," a talk illustrated with films, was the subject of Arthur Doane, of the Railway & Engineering Specialties' Toronto Branch, when he addressed members of the Refrigeration Service Engineers' Society's Mount Royal Chapter here recently.

Movies for the occasion, which was a supper meeting of the group at the Queens hotel, were supplied by Bird's Eye Frozen Food Corp.

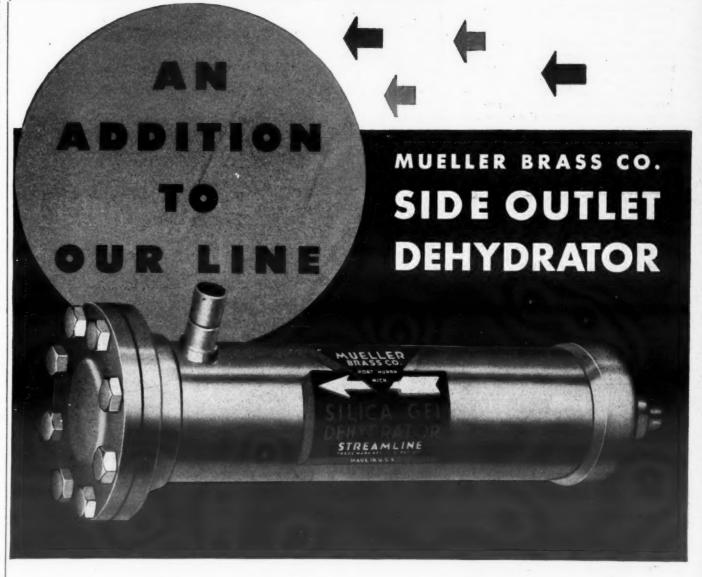
Plans for the local chapters' dinner-dance were also announced at the meeting by D. S. Greenberg, secretary.

New Los Angeles Firm

LOS ANGELES - Machine Freezers, Inc., is a new corporation in Los Angeles, with a capital of \$25,000. Directors are Joseph M. Roush, J. D. Bruner, and George L.

Market Adds Locker Plant

SHAFTER, Calif.-A new locker plant is being built as an addition to the Central Market here. It will be 50 x 100 feet in area and will



The Mueller Brass Co. Side Outlet Dehydrator permits the renewal of the drying agent without breaking the line. All that is necessary is to remove the flanged end, remove the exhausted drying agent, and replace with new.

All Mueller Brass Co. Filters and Driers are provided with the CONE SCREEN OUTLET, a specially designed filtering element that adds immeasurably to the life and efficiency of Driers and Filters.

Almost all crystalline dehydrating agents are subject to a certain amount of abrasion while a dehydrator is in service. Small portions of the dehydrating agent break down into very fine powder and crystals. Unless a well-designed filtering element is incorporated in a dehydrator, these fine crystals and powder have a tendency to clog the outlet filter, resulting in restriction to the flow of refrigerant.

With the MBCO. CONE SCREEN OUTLET, such finer crystals and powder are forced to the base of the cone, leaving the center and tip of the screen open to the free flow of refrigerant.

In addition, the cone screen is filled with pure wool which traps such particles that are sufficiently fine to pass through the screen mesh.

Particular attention has been paid to screen areas. in Mueller Brass Co. Filters and Dehydrators, so that each size permits efficient passage to the maximum refrigerant volume that is used in a particular size refrigerant line.

PORT HURON, MICHIGAN

Metal Shortages--

(Concluded from Page 1, Column 5)

the workers have returned to their jobs. But some time will be required before production is in high gear. Some 40 smaller steel producers, however, have not yet signed up with the union.

Nearly 14,000 workers in major brass plants are now on strike. In addition to strikes at American Brass Co., Chase Brass & Copper Co., and the Scoville Co., the Oakville wire fabricating division of Scoville shut down last week when CIO employes walked out.

Officials of the brass plants have suspended the negotiations pending decision on an appeal for price relief which has been sent to OPA.

Copper and lead supplies of the country were further hit when strikes started last week at 16 smelting and refining plants of the American Smelting & Refining Co. The CIO union involved has been demanding the right to bargain nationally for all 16 plants instead of on a plant-byplant basis as in the past.

Also involved is a wage increase demand. The company has offered a 121/2 cents an hour boost, and the union has lowered its demands to 21 cents an hour raises.

The 16 plants of the company have been treating about one third of the present available supply of lead and copper coming from domestic mines, it is estimated.

Prospects of further dwindling supplies of both copper and lead are causing consumers some concern. The lead shortage is said to be world-wide.

Following the recent settlement of the steel strike involving an average price boost of \$5 a ton, OPA is now preparing specific price ceilings on products made by the basic steel industry.

One of the problems is to determine who qualifies for the price increase as a fabricator. It is indicated that OPA is listing "fabricators" on the basis that any steel product now controlled by the metals branch of OPA will fall under the steel wageprice rules.



Write for complete information. Bulletins C-14-M, C-58, C-68-C

of Curtis Manufacturing Company 1912 Kienien Avenue . St. Louis 20, Mo



Third of Wyoming Eats Frozen Foods

LARAMIE, Wyo. - An estimated one third of Wyoming's population now eat food processed in freezer units, according to Miss E. J. Thiessen, home economist at Wyoming University's state experimental

Miss Thiessen further pointed out that locker storage space for food has more than doubled during the past two years. Compared to 9,100 food lockers available throughout the state in 1944, there are now approximately 18,800 lockers provided by the 44 locker plants now in operation, she said.

Of this number 18,433 are already rented, Miss Thiessen stated.

Refrigeration Corp. **Buys Titeflex Plant**

PERTH AMBOY, N. J.-Refrigeration Corp. has purchased an industrial plant here which was used during the war by Titeflex, Inc., and prior to that by the American Encaustic Tiling Co.

When additional construction, already begun, has been completed the new Refrigeration Corp. plant will cover 145,000 sq. ft. The property comprises 19 acres, which extends from State St. to Garretson Ave. from the Central Railroad of N. J. and the Pennsylvania Railroad.

The building for the main part is of one-story construction. It is 640 ft. long and is served by a railroad siding running 2,800 ft., the length

of the property. A portion of the front section of the building runs two stories to provide 10,000 sq. ft. of space for offices and research and testing laboratories.

John M. Bess, president of Refrigeration Corp., said between 600 and 700 persons will be employed at the Perth Amboy factory. The concern recently became a wholly-owned subsidiary of Noma Electric Corp.

Products of the Perth Amboy plant will include frozen food cabinets, air conditioned candy cases, beverage coolers, and portable air conditioning equipment. It was announced that Refrigeration Corp. hopes to have the Perth Amboy plant operating by May.

Refrigeration Corp. bought the property from Allen Industries of Detroit, maker of automobile upholstery and other products, which had acquired it a year ago for intended postwar use.

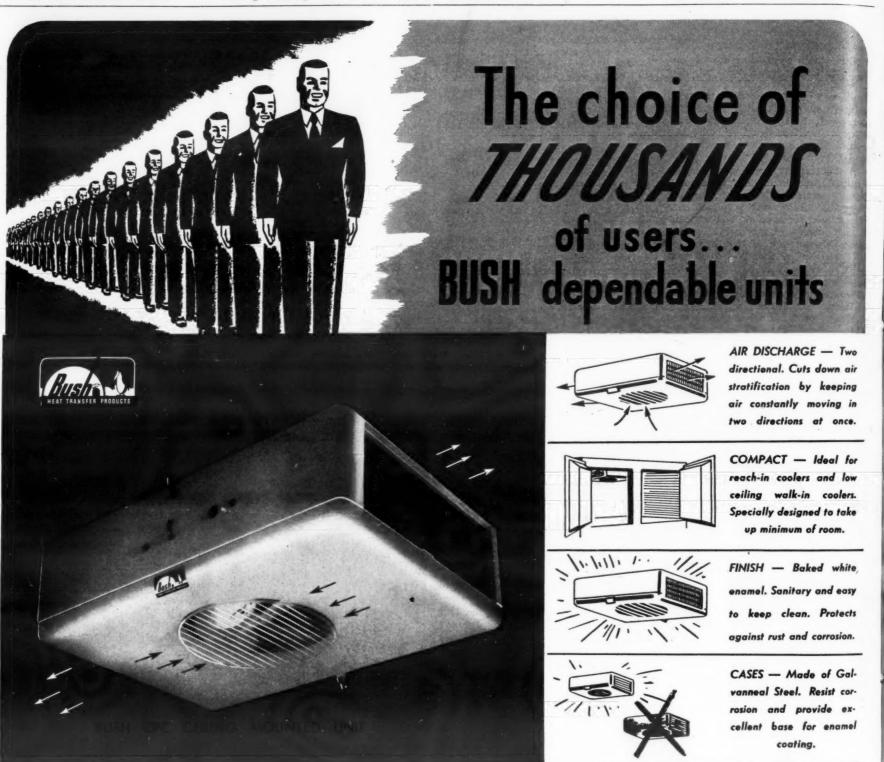
York Corp. Sees Vast **Export Market Expansion**

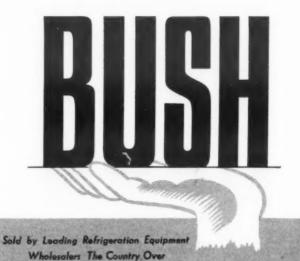
YORK, Pa.-York Corp., anticipat. ing a "vastly expanding market in the export field," announces formation of an International Division and appointment of James C. Tweedell, York export manager since 1935, as manager.

The announcement, made by S. E. Lauer, York president, said S. L. Cordis has been named assistant manager, and C. E. Renninger sales manager.

Mr. Tweedell served as acting general sales manager during the war period.

Headquarters of the new division are located at 50 Broadway, New York City.





Thousands of BUSH Units now in service the country over represent the choice of men who know . . . jobbers, dealers, service engineers, refrigeration men and plant managers in diversified industries. BUSH units were chosen for many reasons . . . but the most apparent from the record is

DEPENDABILITY that eliminates costly service calls.

DEPENDABILITY that cuts down frequent call backs for adjustments.

DEPENDABILITY that means constant, trouble-free service.

DEPENDABILITY that can take overloads without breakdowns. DEPENDABILITY that will stand the test of time and adverse conditions.

DEPENDABILITY that has built a record of enviable performance.

HEAT TRANSFER PRODUCTS

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